

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME

FISH BULLETIN 132

THE CALIFORNIA MARINE FISH CATCH FOR 1964

By

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Marine Resources Operations



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FIGURE 1

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FOREWORD

Catch bulletins provide records of California's commercial fisheries and their value to fishermen. They also summarize the marine partyboat angler's catch.

The report for 1964 is the 24th in the series. Prior records have been published regularly beginning with those for 1926 and 1927. In recent years, catch bulletins have been published annually instead of biennially.

Records are obtained from each wholesale fish dealer or processor who receives fish from fishermen or who processes fish. Partyboat operators record each trip's catch, and these records are also sent to the Department. Clerical personnel in strategic locations (Eureka, San Francisco, Monterey, Terminal Island, and San Diego) maintain contact with fish dealers and local Fish and Game wardens to insure that the records are accurate and transmitted promptly. All data are edited and subsequently processed by electric accounting machines.

Published figures are of national and international concern, but they are used primarily by fisheries scientists and state legislators to manage and regulate California's important fisheries. Chambers of commerce, members of the fishing industry, educators, and others also find these catch statistics of value.

Special acknowledgement is given to the staff of the Biostatistical Unit who process the many documents necessary for this publication. The assistance of the wardens along the coast and the aid forthcoming from the many fish wholesale dealers and canners is appreciated.

EXPLANATION OF TABLES

The tables of this report summarize the statistics of various fisheries operations in California during 1964. In general, this report covers: landings of the commercial fishing fleet of California; sport catches of the partyboat fleet; imports of fish from other states or foreign countries that are destined for processing in California; deliveries to retail stores of bait used for sportfishing; and catches of boats that supply partyboats, skiffs, and yachts with live bait.

One of the most important fishery statistics we present is the total landings of each species harvested by California's fishermen. In addition, it is essential to know where and when catches are made. The tables therefore show the month and area of landing for each variety.

Data are not available for some of California's fisheries operations. For instance, fish shipped into California that are utilized in a fresh state are not reported to our Department. Likewise, sport fishermen aboard private skiffs and yachts, or fishing from shore or piers are not required to report their catches; however, the Department investigates the catch and effort expended in these activities.

SOURCE OF DATA

Data on the commercial fishing fleet, bait deliveries, and imports are recorded on sales slips or receipts which are completed by fish dealers at the time of delivery. The receipts are transmitted to the Department twice each month. Each dealer is required by law to include on the receipt the following information concerning the transaction: weight of each species received; price paid to the fisherman; date; name of the fisherman; Department of Fish and Game registration number of boat; name of the dealer; and intended disposition of the fish (canned, fresh, etc.).

In addition, area of catch and type of gear used to catch the fish are reported for most landings.

The partyboat and live-bait boat catches are obtained from records or logs completed for each trip by the boat operator. The law requires skippers of partyboats to send records of their daily catches to the Department each month; however, the information received from the live-bait boats is given voluntarily.

The log of each fishing trip made by a partyboat contains the following information: count of each species taken; number of anglers; area fished; the number of hours fished; date; and boat identification.

Operators of live-bait boats report the number of net-sets and the number of scoops of bait sold each day. The species caught as well as the area fished are also given.

When fish receipts and fishing trip records are received, they are first edited and coded. The data are then punched into cards before being summarized with electric tabulating machines.

STATISTICAL AREAS

California is divided into seven areas for the purpose of reporting fisheries statistics. Each statistical area is named for a major port within its boundaries (Figure 1). Department personnel are responsible for collecting and inventorying landing receipts in each statistical area.

SPECIES

The species of fish landed or shipped into California are listed in Table 2. Both common and scientific names are given. Some varieties are reported collectively when, for economic or other reasons, dealers do not report a specific separation.

One example of species grouping is the animal-food category which consists of a variety of fish caught by trawling. In an attempt to determine the species comprising animal food landings, a sampling program has been conducted by biologists of the Department's Bottom-fish Investigation. Based on their findings, the estimated weight each species contributed to the 1964 animal-food category is:

<i>Species</i>	<i>Percent</i>	<i>Pounds</i>
Sablefish -----	44.8	778,822
Pacific hake -----	15.9	276,412
Rockfish -----	12.6	219,044
Arrowtooth flounder -----	12.2	212,090
Dover sole -----	5.3	92,137
English sole -----	4.2	73,014
Rex sole -----	2.4	41,723
Twenty-one other species -----	2.6	45,199
	100.0	1,738,441

CONDITION

Most fish and shellfish landed in California are in a round condition; however, some species, such as salmon and swordfish, are eviscerated or cleaned before landing. The condition of fish landed and shipped into the State cannot always be determined; therefore, the weights summarized in the tables are as reported to the Department without regard to condition.

Starting with 1963 records, the oyster poundage is published as packed gallon weight instead of live (in the shell) weight. The packed gallon weight of Pacific oysters is estimated to be 15.5 percent of live weight landings; that for Eastern oysters is somewhat lower at 10.9 percent.

CONVERSIONS

Landings reported by units of measure other than pounds are equated to pounds by using appropriate conversion factors. Conversion factors

are determined periodically by sampling landings at delivery points. The factors applied to nine species during 1964 were:

Abalone, red -----	50 pounds per dozen
Abalone, pink -----	25 pounds per dozen
Abalone, green -----	35 pounds per dozen
Clam, Washington -----	7 pounds per dozen
Crab, market -----	2 pounds each
Crab, sand -----	.041 pounds per dozen
	4.5 pounds per gallon
Mudsucker -----	19 pounds per tray
	.465 pounds per dozen
Mussel -----	80 pounds per sack
	3.8 pounds per shucked pound
	30 pounds per gallon
Shrimp, ghost -----	.046 pounds per dozen

VALUE

Value is computed from prices paid to the fishermen. Values, therefore, reflect the contribution of the fishermen to the total worth of the fisheries. When the price paid for an individual landing is not specified, the average price for the species in the area in which it was landed is used.

TABLE 1

Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1964 Catch

Common name	Scientific name	Common name	Scientific name
FISHES			
Anchovy.....	<i>Engraulis mordax</i>	Shark	
Barracuda, California	<i>Sphyrna argentea</i>	Brown smooth-	
Blacksmith.....	<i>Chromis punctipinnis</i>	hound.....	<i>Triakis henlei</i>
Bonito, Pacific.....	<i>Sarda chiliensis</i>	Leopard.....	<i>Triakis semifasciata</i>
Cabezon.....	<i>Scorpaenichthys marmoratus</i>	Pacific angel.....	<i>Squatina californica</i>
Cabrilla, spotted.....	<i>Epinephelus analogus</i>	Soupin.....	<i>Galeorhinus zyopterus</i>
Carp.....	<i>Cyprinus carpio</i>	Spiny dogfish.....	<i>Squalus acanthias</i>
Croaker		Thresher.....	<i>Alopias vulpinus</i>
White.....	<i>Genyonemus lineatus</i>	Small amounts of	
Small amounts of		others	
queenfish.....	<i>Seriophus politus</i>	Sheephead, California	<i>Pimelotopon pulchrum</i>
Dolphinfish.....	<i>Coryphaena hippurus</i>	Sierra.....	<i>Scomberomorus sierra</i>
Eel, moray.....	<i>Gymnothorax mordax</i>	Skate	
Flounder		Big.....	<i>Raja binoculata</i>
Arrowtooth.....	<i>Atheresthes stomias</i>	California.....	<i>Raja inornata</i>
Starry.....	<i>Platichthys stellatus</i>	Longnose.....	<i>Raja rhina</i>
Small amounts of		Small amounts of	
other flatfishes		others	<i>Rajiformes</i>
Flyingfish.....	<i>Cypselurus</i> spp.	Smelt	
Greenling, kelp.....	<i>Hexagrammos decagrammus</i>	Grunion.....	<i>Leuresthes tenuis</i>
Grouper.....	<i>Mycteroperca</i> spp.	Jacksmelt.....	<i>Atherinopsis californiensis</i>
Hake, Pacific.....	<i>Merluccius productus</i>	Surf.....	<i>Hypomesus pretiosus</i>
Halfmoon.....	<i>Medialuna californiensis</i>	Topsmelt.....	<i>Atherinops affinis</i>
Halibut		Smelt, whitebait.....	<i>Allosmerus elongatus</i>
California.....	<i>Paralichthys californicus</i>		<i>Spirinchus starksi</i>
Pacific.....	<i>Hippoglossus stenolepis</i>	Young of several others	
Hardhead		Sole	
Sacramento black-		Dover.....	<i>Microstomus pacificus</i>
fish.....	<i>Orthodon microlepidotus</i>	English.....	<i>Parophrys vetulus</i>
Hardhead.....	<i>Myliopharodon conocephalus</i>	Petrale.....	<i>Eopsetta jordani</i>
Herring, Pacific.....	<i>Clupea pallasii</i>	Rex.....	<i>Glyptocephalus zachirus</i>
Lingcod.....	<i>Ophiodon elongatus</i>	Sand.....	<i>Psettichthys melanostictus</i>
Mackerel		Small amounts of	
Jack.....	<i>Trachurus symmetricus</i>	others	
Pacific.....	<i>Scomber diego</i>	Splittail.....	<i>Pogonichthys macrolepidotus</i>
Mudsucker, longjaw.....	<i>Gillichthys mirabilis</i>	Sturgeon.....	<i>Acipenser</i> spp.
Mullet, striped.....	<i>Mugil cephalus</i>	Sucker.....	<i>Catostomus</i> spp.
Opaleye.....	<i>Girella nigricans</i>	Swordfish.....	<i>Xiphias gladius</i>
Perch.....	Members of family Embiotocidae	Tuna	
Pompano, Pacific.....	<i>Palometa similima</i>	Albacore.....	<i>Thunnus alalunga</i>
Rockfish.....	All species of <i>Sebastes</i> and	Bigeye.....	<i>Thunnus obesus</i>
	<i>Sebastes</i>	Bluefin.....	<i>Thunnus thynnus</i>
Sablefish.....	<i>Anoplopoma fimbria</i>	Skipjack.....	<i>Katsuwonus pelamis</i>
Salmon		Yellowfin.....	<i>Thunnus albacares</i>
King.....	<i>Oncorhynchus tshawytscha</i>	Turbot	
Silver.....	<i>Oncorhynchus kisutch</i>	Curlfin.....	<i>Pleuronichthys decurrens</i>
Sanddab.....	<i>Citharichthys sordidus</i>	Diamond.....	<i>Hypsopsetta guttulata</i>
Sardine.....	<i>Sardinops caerulea</i>	Hornyhead.....	<i>Pleuronichthys verticalis</i>
Sargo.....	<i>Anisotremus davidsoni</i>	Small amounts of	
Sculpin.....	<i>Scorpaena guttata</i>	others	
Sea bass, giant.....	<i>Stereolepis gigas</i>	Wahoo.....	<i>Acanthocybium solanderi</i>
Seabass, white.....	<i>Cynoscion nobilis</i>	Whitefish, ocean.....	<i>Caulolatilus princeps</i>
Shad.....	<i>Alosa sapidissima</i>	Yellowtail, California.....	<i>Seriola dorsalis</i>
CRUSTACEANS			
Crab		Prawn.....	<i>Pandalus platyceros</i>
King.....	<i>Paralithodes camtschatica</i>	Shrimp	
Market.....	<i>Cancer magister</i>	Bay.....	<i>Crago franciscorum</i>
Rock.....	<i>Cancer productus</i>		<i>Crago nigricauda</i>
	<i>Cancer antennarius</i>	Ghost.....	<i>Callinassa californicus</i>
	<i>Cancer anthonyi</i>	Ocean.....	<i>Pandalus jordani</i>
Sand.....	<i>Emerita analoga</i>	Red.....	<i>Hippolytina californica</i>
Lobster, spiny.....	<i>Panulirus interruptus</i>		
MOLLUSKS			
Abalone		Mussel	
Pink.....	<i>Haliotis corrugata</i>	Bay.....	<i>Mytilus edulis</i>
Red.....	<i>Haliotis rufescens</i>	Rock.....	<i>Mytilus californianus</i>
Green.....	<i>Haliotis fulgens</i>	Octopus.....	<i>Octopus</i> spp.
Clam		Oyster	
Freshwater.....	<i>Corbicula fluminea</i>	Eastern.....	<i>Crassostrea virginica</i>
Gaper.....	<i>Tresus nuttalli</i>	Giant Pacific.....	<i>Crassostrea gigas</i>
Jackknife.....	<i>Tagelus californianus</i>	Snail, sea.....	<i>Kelletia kellet</i>
Purple.....	<i>Sanguinolaria nuttalli</i>	Squid.....	<i>Loligo opalescens</i>

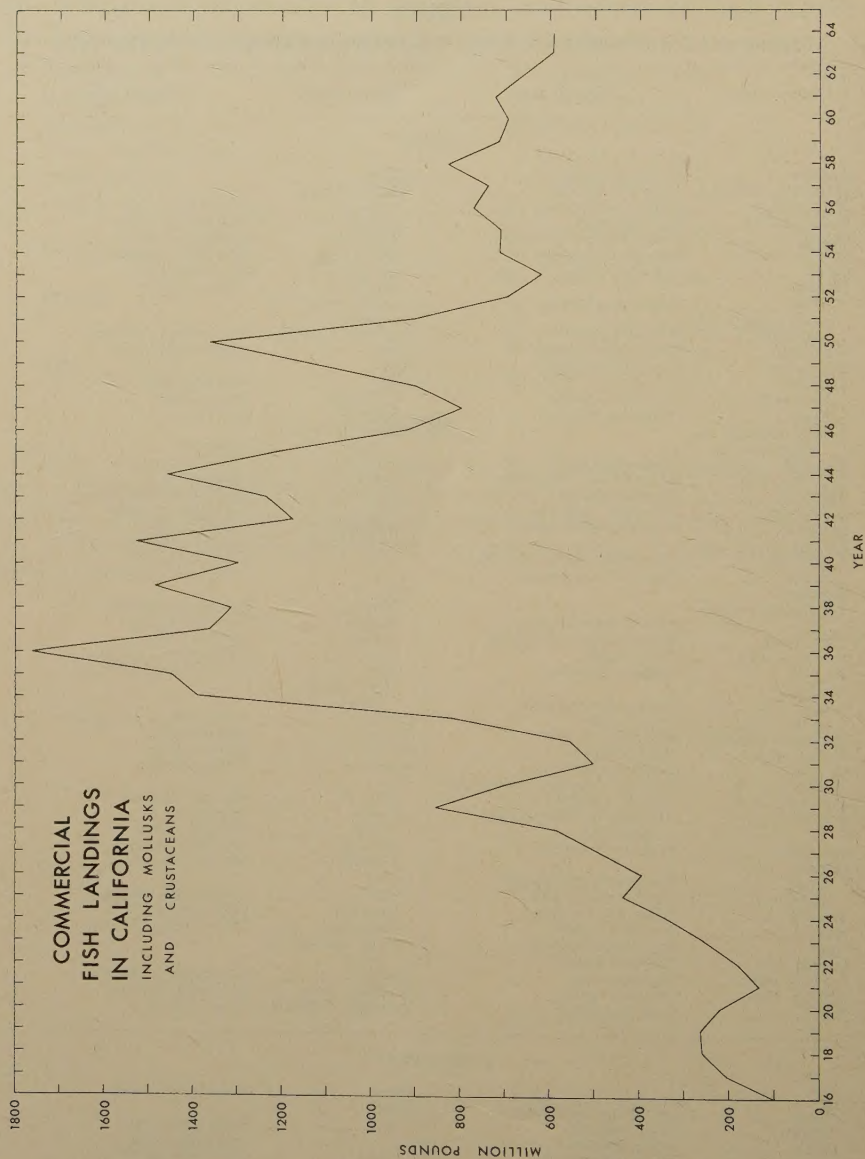


FIGURE 2. Total annual landings and shipments into California. Includes sardine deliveries to reduction ships, 1930-38 (see Table 2).

TABLE 2

Total Annual Landings and Shipments Into California of Commercial Fish, Mollusks, and Crustaceans, Includes Sardine Deliveries to Reduction Ships During 1930 Through 1938

Year	Thousands of pounds	Year	Thousands of pounds
1916	95,003	1941	1,529,148
1917	209,877	1942	1,173,414
1918	261,134	1943	1,234,049
1919	266,270	1944	1,459,446
1920	222,004	1945	1,216,467
1921	135,348	1946	919,850
1922	182,343	1947	795,499
1923	253,875	1948	900,540
1924	340,446	1949	1,135,325
1925	437,502	1950	1,366,596
1926	394,964	1951	904,088
1927	487,166	1952	694,977
1928	583,527	1953	618,899
1929	856,854	1954	713,406
1930	702,189	1955	710,714
1931	502,390	1956	772,549
1932	556,139	1957	738,550
1933	821,805	1958	832,919
1934	1,390,799	1959	713,491
1935	1,448,017	1960	694,663
1936	1,764,900	1961	725,253
1937	1,362,984	1962	663,107
1938	1,310,596	1963	592,899
1939	1,486,535	1964	591,131
1940	1,297,517		

TABLE 3

Landings and Shipments of Leading Species Ranked by Pounds

1963				1964			
Species	Rank	Thousands of pounds	Thousands of dollars	Species	Rank	Thousands of pounds	Thousands of dollars
Yellowfin tuna	1	162,326	\$23,461	Yellowfin tuna	1	202,856	\$28,678
Skipjack	2	106,285	11,411	Jack mackerel	2	89,693	2,109
Jack mackerel	3	95,442	1,989	Albacore	3	74,721	12,266
Albacore	4	65,805	10,710	Skipjack	4	72,554	7,227
Pacific mackerel	5	40,243	861	Bluefin tuna	5	26,832	3,385
Bluefin tuna	6	32,702	3,724	Pacific mackerel	6	26,828	666
Rockfish	7	11,761	683	Squid	7	16,434	333
Squid	8	11,561	240	Sardine	8	13,137	500
Dover sole	9	9,782	599	Salmon	9	10,175	5,374
Salmon	10	8,035	4,110	Dover sole	10	9,265	560
Sardine	11	7,131	299	Rockfish	11	8,118	490
Anchovy	12	4,570	78	Anchovy	12	4,975	82
Abalone	13	4,354	627	English sole	13	4,593	354
English sole	14	4,254	329	Abalone	14	4,079	573
Pacific bonito	15	4,022	113	Petrale sole	15	2,698	323
Petrale sole	16	3,318	400	Sablefish	16	2,644	203
Ocean shrimp	17	2,093	202	Pacific bonito	17	2,612	66
Sablefish	18	1,998	136	Market crab	18	1,815	618
Market crab	19	1,951	688	Miscellaneous (animal food)	19	1,738	35
Rex sole	20	1,566	108	Rex sole	20	1,411	95
All others		13,700	2,050	All others		13,953	2,244
Totals		592,899	\$62,818	Totals		591,131	\$66,181

TABLE 4
Number of Licensed Commercial Fishermen

Area of residence	License year*	
	1963-64	1964-65
Eureka.....	1,195	1,277
Sacramento.....	190	239
San Francisco.....	1,284	1,396
Monterey.....	684	694
Santa Barbara.....	659	761
Los Angeles.....	2,163	2,132
San Diego.....	1,736	1,750
Alaska, Washington and Oregon fishermen licensed in California.....	523	532
Mexican nationals licensed in California.....	64	83
Other.....	46	49
Totals.....	8,544	8,913

* April 1 to March 31.

TABLE 5
Number of Registered Fishing Boats by Length

License year*	Up to 24 feet	25 to 39 feet	40 to 64 feet	65 to 84 feet	85 to 99 feet	100 feet and over	Total
1963-1964.....	852	1,698	1,050	109	37	96	3,842†
1964-1965.....	1,021	1,679	1,108	121	35	98	4,062‡

* April 1 to March 31.

† The owners of 523 boats were issued fishing party licenses in 1963-64.

‡ The owners of 462 boats were issued fishing party licenses in 1964-65.

TABLE 6

Origin of Shipments of Fresh Fish Into California During 1964

Shipped from: Species	Pounds shipped to each area				Total pounds
	San Francisco	Monterey	Los Angeles	San Diego	
Continental United States:					
Sturgeon	---	---	32,585	---	32,585
Miscellaneous	92,000	---	---	---	92,000
Oregon, Washington, Canada and Alaska:					
Crab, king	21,492	---	---	---	21,492
Sablefish	---	---	20,169	---	20,169
Salmon	---	---	693,942	---	693,942
Shad	3,365	---	71,105	---	74,470
Smelt	---	4,105	---	---	4,105
Sturgeon	---	---	3,224	---	3,224
Miscellaneous	---	---	141,975	---	141,975
Mexico and Central America:					
Barracuda, California	---	---	803	---	803
Halibut, California	---	---	3,120	---	3,120
Seabass, white	---	---	797	---	797
Shark	---	---	1,520	---	1,520
Tuna, bluefin	---	---	69,159	---	69,159
Tuna, skipjack	---	---	1,349,815	199,318	1,549,133
Tuna, yellowfin	---	---	1,141,413	---	1,141,413
Miscellaneous	---	---	152	---	152
South America:					
Tuna, skipjack	---	---	2,176,167	1,698,732	3,874,899
Tuna, yellowfin	---	---	5,149,461	201,439	5,350,900
Japan:					
Sablefish	---	---	160,000	---	160,000
Tuna, albacore	1,804,676	---	26,500,712	187,805	28,493,193
Tuna, bigeye	62,712	---	27,935	---	90,647
Tuna, yellowfin	6,047,681	---	35,372,275	99,187	41,519,143
Australia:					
Tuna, albacore	---	---	2,733	---	2,733
Tuna, bluefin	---	---	3,591,522	---	3,591,522
Tuna, skipjack	8,040	---	---	---	8,040
Tuna, yellowfin	81,860	---	---	---	81,860
China (Formosa):					
Tuna, albacore	403,726	---	275	---	404,001
Tuna, bigeye	250,673	---	---	---	250,673
Tuna, yellowfin	1,359,421	---	137,740	---	1,497,161
Malaya:					
Tuna, albacore	251,727	---	2,862,934	---	3,114,661
Tuna, bigeye	143,843	---	92,822	---	236,665
Tuna, yellowfin	1,117,024	---	2,926,259	---	4,043,283
South Pacific Islands:					
Tuna, albacore	---	---	93,115	---	93,115
Tuna, skipjack	---	---	1,055,957	---	1,055,957
Tuna, yellowfin	---	---	165,198	---	165,198
Java:					
Tuna, skipjack	---	---	7,297	---	7,297
Tuna, yellowfin	---	---	36,658	---	36,658
Africa:					
Tuna, albacore	---	---	62,250	---	62,250
Total pounds	11,648,240	4,105	83,951,089	2,386,481	97,989,915

TABLE 7

Origin of Commercial Fish Landings and Volume of Shipments Into California During 1964

Species	Landings of catches from				Shipments*	Grand total
	California waters	Waters north of State	Waters south of State	Total pounds		
Fish:						
Anchovy	4,975,089	---	---	4,975,089	---	4,975,089
Barracuda, California	251,025	---	83,115	334,140	803	334,943
Blacksmith	145,143	---	---	145,143	---	145,143
Bonito, Pacific	2,606,411	---	5,858	2,612,269	---	2,612,269
Cabezon	5,281	---	---	5,281	---	5,281
Cabrilla, spotted	---	---	13,592	13,592	---	13,592
Carp	194,527	---	---	194,527	---	194,527
Croaker, white	838,512	---	72	838,584	---	838,584
Flounder	418,932	2,054	---	420,986	---	420,986
Flounder, arrowtooth	9,735	---	---	9,735	---	9,735
Flyingfish	85,910	---	---	85,910	---	85,910
Grouper	---	---	164,030	164,030	---	164,030
Hake, Pacific	111,529	---	---	111,529	---	111,529
Halfmoon	10,023	---	20	10,043	---	10,043
Halibut, California	1,092,068	---	184,037	1,276,105	3,120	1,279,225
Halibut, Pacific	3,040	---	---	3,040	---	3,040
Hardhead	156,847	---	---	156,847	---	156,847
Herring, Pacific	349,270	---	---	349,270	---	349,270
Lingcod	810,301	25,375	701	836,377	---	836,377
Mackerel, jack	89,672,911	---	20,000	89,692,911	---	89,692,911
Mackerel, Pacific	26,827,216	---	665	26,827,881	---	26,827,881
Opaleye	2,001	---	---	2,001	---	2,001
Perch	131,359	---	1,756	133,115	---	133,115
Pompano, Pacific	121,222	---	---	121,222	---	121,222
Rockfish	7,850,373	193,489	74,050	8,117,912	---	8,117,912
Sablefish	2,419,191	44,206	55	2,463,452	180,169	2,643,621
Salmon	9,481,215	---	---	9,481,215	693,942	10,175,157
Sanddab	587,179	1,858	489	589,526	---	589,526
Sardine	13,137,483	---	---	13,137,483	---	13,137,483
Sculpin	77,585	---	16,640	94,225	---	94,225
Sea bass, giant	14,018	---	208,697	222,715	---	222,715
Seabass, white	550,817	---	840,264	1,391,081	797	1,391,878
Shad	---	---	---	---	74,470	74,470
Shark	606,402	---	40,167	646,569	1,520	648,089
Sheephead, California	13,404	---	4,530	17,934	---	17,934
Skate	222,705	---	---	222,705	---	222,705
Smelt	414,039	---	---	414,039	4,105	418,144
Smelt, whitebait	191,215	---	---	191,215	---	191,215
Sole, Dover	8,593,526	671,712	---	9,265,238	---	9,265,238
Sole, English	4,544,028	48,724	---	4,592,752	---	4,592,752
Sole, petrale	2,664,302	33,368	---	2,697,670	---	2,697,670
Sole, rex	1,394,180	16,467	---	1,410,647	---	1,410,647
Sole, sand	336,197	---	---	336,197	---	336,197
Sole, miscellaneous	46,946	268	51	47,265	---	47,265
Sturgeon	---	---	---	---	35,809	35,809
Swordfish	177,306	---	5,717	183,023	---	183,023
Tuna, albacore	33,867,847	---	8,683,164	42,551,011	32,169,953	74,720,964
Tuna, bigeye	---	---	---	---	577,985	577,985
Tuna, bluefin	4,655,330	---	18,515,928	23,171,258	3,660,681	26,831,939
Tuna, skipjack	3,988	---	66,054,966	66,058,954	6,495,326	72,554,280
Tuna, yellowfin	84	---	149,020,029	149,020,113	53,835,616	202,855,729
Turbot	92,810	470	---	93,280	---	93,280
Wahoo	---	---	4,248	4,248	---	4,248
Whitefish, ocean	975	---	796	1,771	---	1,771
Yellowtail, California	25,878	---	84,221	110,099	---	110,099
Miscellaneous	1,293	---	141	1,434	234,127	235,561
Miscellaneous (animal food)	1,669,940	68,501	---	1,738,441	---	1,738,441

TABLE 7—Continued

Origin of Commercial Fish Landings and Volume of Shipments Into California During 1964

Species	Landings of catches from				Shipments*	Grand total
	California waters	Waters north of State	Waters south of State	Total pounds		
Crustacean:						
Crab, king.....	-----	-----	-----	-----	21,492	21,492
Crab, market.....	1,815,363	-----	-----	1,815,363	-----	1,815,363
Crab, rock.....	263,885	-----	-----	263,885	-----	263,885
Lobster, spiny.....	446,655	-----	-----	446,655	-----	446,655
Prawn.....	5,775	-----	-----	5,775	-----	5,775
Shrimp, ocean.....	968,325	131,822	-----	1,100,147	-----	1,100,147
Mollusk:						
Abalone.....	4,079,223	-----	-----	4,079,223	-----	4,079,223
Clam, Washington.....	4,133	-----	-----	4,133	-----	4,133
Octopus.....	38,691	-----	-----	38,691	-----	38,691
Oyster, eastern.....	4,910	-----	-----	4,910	-----	4,910
Oyster, giant Pacific.....	1,354,737	-----	-----	1,354,737	-----	1,354,737
Squid.....	16,433,624	-----	-----	16,433,624	-----	16,433,624
Miscellaneous mollusk.....	467	-----	-----	467	-----	467
Total pounds.....	247,874,396	1,238,314	244,027,999	493,140,709	97,989,915	591,130,624

* For origin of shipments refer to Table 6.

TABLE 8
Monthly Landings and Shipments Into California During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS:													
Fish:													
Anchovy.....	349,063	57,605	320,737	219,100	501,840	327,508	439,091	612,677	605,573	885,759	512,031	144,005	4,975,089
Barracuda, California.....	64	15,243	10,869	75,795	31,473	87,215	7,868	7,573	1,124	22,542	46,916	27,458	334,140
Blacksmith.....							108,996	10,340	25,807				145,143
Bonito, Pacific.....	73,642	199,497	1,388	586	6,512	311,294	421,087	430,272	648,883	325,905	102,651	90,552	2,612,269
Cabezon.....	914	559	196	594	351	17	4		319		1,803	524	5,281
Cabrilla, spotted.....	10,175	2,218	265	140	64		730						13,592
Carp.....	12,807	31,035	24,980	12,005	10,500	9,500	7,900	11,300	37,400	10,600	11,550	14,300	194,527
Craker, white.....	103,426	40,898	78,537	53,440	67,529	61,731	23,263	19,385	31,110	27,942	30,558	300,765	838,584
Flounder.....	71,850	115,874	34,782	21,873	15,462	18,636	16,363	17,645	49,104	28,636	9,276	21,485	420,986
Flounder, arrowtooth.....		409	479	3,261	3,730	493	315		180	400		468	9,735
Flvingfish.....							22,413	37,744	12,567	186			88,910
Grouper.....	57,173	15,442	26,061	1,314		13,000	9,650		1,185				164,030
Hake, Pacific.....	2,495	1,500	4,457	21,839	22,530	34,447	14,695	6,985	620	1,860	10,705	100	111,529
Halibut.....	94					60	60	380	3,737	3,086	1,180	1,446	10,043
Halibut, California.....	174,195	207,096	124,222	61,065	49,512	77,530	127,896	99,910	67,861	76,587	91,303	118,923	1,276,105
Halibut, Pacific.....					578	670	975	360	404	53			3,040
Hardhead.....			38,005	12,995	12,450	13,300	1,203	3,300	1,600	10,150	9,375	18,950	156,847
Herring, Pacific.....	8,493	7,636	8,640	112,186	130,425	69,662	60		5,940		185	6,073	349,270
Langdon.....	16,700	23,886	20,330	53,084	76,571	123,385	137,859	99,859	101,237	100,364	60,107	26,957	836,377
Macarel, jack.....	144,191	3,203,398	8,846,555	6,110,181	3,054,820	14,004,877	4,370,359	6,605,988	11,464,055	14,615,182	10,928,288	6,144,017	89,692,911
Macarel, Pacific.....	301,438	442,099	305,415	1,140,090	486,151	2,154,523	3,909,512	4,136,817	6,574,701	4,564,701	2,737,959	75,325	26,827,881
Oncaleye.....		183	19			28	43	89	535	722	416	16	2,001
Perch.....	14,834	14,303	20,955	25,811	230	1,212	13,871	13,818	12,391	3,566	6,917	5,187	133,115
Pompano, Pacific.....	955	1,959	4,373	1,905	6,900	7,816	3,811	1,974	48,292	2,315	7,840	32,889	121,222
Rockfish.....	741,071	945,078	509,678	559,800	674,416	786,500	666,945	639,031	706,917	877,512	580,908	426,156	8,117,912
Sablefish.....	46,614	198,992	137,973	154,808	222,105	241,814	289,892	176,562	243,762	430,462	210,206	110,202	2,463,452
Salmon.....				570,324	1,605,182	2,044,827	3,288,664	1,793,604	178,714				9,481,215
Sardine.....	15,139	23,131	52,305	67,098	67,031	62,510	71,991	59,556	67,638	49,252	33,703	10,882	589,526
Sardine, black.....	126,315	331,185	463,971	447,081	348,510	632,640	133,380	378,015	7,547,370	1,497,003	960,485	271,528	13,137,483
Sculpin.....	11,990	8,787	2,576	4,177	2,710	9,099	15,061	18,841	10,486	4,111	3,001	2,916	94,225

Sea bass, giant.....	25,107	20,264	23,036	25,072	6,031	12,511	20,803	5,471	16,564	21,693	16,910	26,223	222,715
Seabass, white.....	58,333	140,337	156,396	115,035	110,283	89,485	62,865	218,341	137,236	123,852	130,700	48,408	1,391,081
Shark.....	46,438	34,033	31,501	29,763	78,762	99,075	77,552	50,279	50,279	48,390	54,275	41,707	646,569
Sheepshead, California.....	3,118	4,471	575	229	434	1,275	1,888	1,736	853	1,614	701	1,040	17,924
Skate.....	18,762	27,997	20,168	25,886	24,972	21,171	17,802	13,429	13,383	16,905	9,855	9,375	222,705
Snelt.....	8,897	40,444	50,538	14,742	20,800	38,587	65,010	55,886	56,236	45,997	11,237	5,665	414,039
Snelt, whitebait.....	10,326	34,564	11,364	20,071	24,455	21,455	31,650	20,366	1,073,278	1,477,190	602,649	137,187	9,265,238
Sole, Dover.....	67,416	486,868	793,180	583,194	918,195	992,815	1,173,110	950,847	503,970	494,543	115,410	296,567	1,592,732
Sole, English.....	294,594	312,088	272,780	413,780	348,401	369,971	469,173	471,416	229,610	263,912	230,226	202,783	2,697,670
Sole, petrale.....	108,999	112,425	188,585	296,784	299,177	336,563	243,120	185,496	133,845	144,524	118,268	83,121	1,410,647
Sole, rex.....	117,092	135,995	103,995	91,333	107,844	112,681	135,260	126,836	16,123	16,123	16,123	35,032	336,197
Sole, sand.....	88,833	101,856	23,830	10,515	5,759	3,957	5,810	5,561	2,197	2,197	2,050	3,221	47,265
Sole, miscellaneous.....	1,918	2,091	4,728	3,796	6,285	7,745	4,945	3,754	4,826	5,840	12,337	183,023	183,023
Swordfish.....	7,234	---	---	---	---	5,075	17,715	47,770	42,083	58,040	5,175,225	---	12,551,011
Tuna, abacore.....	---	---	---	---	---	---	3,560,104	14,777,347	9,194,805	9,511,809	---	---	---
Tuna, bluefin.....	---	8,880	---	---	18,719	505,378	4,626,013	8,698,441	6,472,337	7,410,418	430,533	60,539	23,171,255
Tuna, skipjack.....	7,227,245	3,726,389	7,446,330	3,925,358	6,066,792	6,271,073	5,214,861	5,731,186	7,486,492	3,354,712	6,225,918	66,058,954	66,058,954
Tuna, yellowfin.....	9,768,157	11,048,793	20,259,368	21,937,010	22,692,720	21,861,340	10,853,189	7,929,320	1,957,100	4,310,028	4,167,149	10,235,739	149,020,113
Turbot.....	11,295	19,692	13,725	5,815	3,057	1,077	4,454	4,296	8,415	4,502	6,208	10,744	63,250
Wahoo.....	---	---	---	2,119	---	440	---	---	---	---	---	1,689	4,248
Whitefish, ocean.....	---	496	89	73	67	---	154	61	---	97	191	543	1,771
Yellowtail, California.....	7,344	3,225	6,902	7,483	9,071	10,714	2,455	3,827	9,398	12,634	18,698	18,348	110,099
Miscellaneous.....	212	251	21	11	123	154	409	153	70	30	1,434	---	1,434
Miscellaneous (animal food).....	118,007	46,190	56,250	61,673	134,442	105,124	282,227	333,789	194,184	323,415	46,973	36,167	1,738,441
Crustacean:	---	---	---	---	---	---	---	---	---	---	---	---	---
Crab, market.....	359,164	154,586	118,558	91,950	67,306	32,518	3,364	---	35,585	22,301	431,490	556,427	1,815,363
Crab, rock.....	15,455	21,340	20,575	26,652	16,350	26,022	20,321	31,029	145,818	92,503	10,929	10,929	283,855
Crab, spiny.....	72,726	53,419	18,064	108	---	---	---	---	46	191	917	64,125	446,655
Prawn.....	2,298	904	108	---	---	---	---	---	---	---	---	1,311	8,775
Shrimp, ocean.....	---	---	---	---	211,749	285,850	230,583	365,425	1,660	4,880	---	---	1,100,137
Mollusk:	---	---	---	---	---	---	---	---	---	---	---	---	---
Alalone.....	178,089	---	251,928	378,950	409,246	327,831	527,627	514,831	345,593	503,940	398,723	272,465	4,079,223
Clam, Washington.....	26	1,702	1,163	1,242	---	---	---	---	---	---	---	---	4,133
Octopus.....	10,633	12,747	4,445	3,690	3,220	2,113	460	421	285	45	195	437	38,691
Oyster, eastern.....	391	2,032	850	---	---	---	---	---	---	---	---	---	384
Oyster, giant Pacific.....	131,046	128,295	126,623	100,750	105,174	94,363	51,082	55,186	82,310	156,594	178,392	141,613	1,354,737
Squid.....	960,670	998,340	206,911	823,975	2,603,629	2,922,475	1,716,160	1,517,147	368,737	44,100	1,038,925	3,226,555	16,433,624
Miscellaneous mollusk.....	40	64	41	32	42	44	12	34	38	51	14	55	467
Total pounds.....	21,941,882	23,597,971	41,259,506	38,733,544	41,624,822	55,662,846	43,726,039	56,340,685	55,778,078	51,197,324	33,303,352	29,074,600	493,140,709

TABLE 8—Continued
Monthly Landings and Shipments Into California During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
SHIPMENTS:*													
Fish:													
Barracuda, California.....	600	---	---	528	---	---	275	---	---	---	---	---	803
Halibut, California.....	---	---	---	440	---	---	1,241	839	---	---	---	---	3,120
Sablefish.....	4,643	50,000	---	3,488	---	---	33,100	29,505	13,369	6,800	110,000	---	180,169
Salmon.....	75	45,503	14,777	---	43,758	---	---	83	7,856	35,897	95,454	379,961	693,942
Seabass, white.....	---	---	---	---	---	---	639	---	---	---	---	---	797
Shad.....	---	---	50,000	---	---	22,405	2,065	---	---	---	---	---	74,470
Shark.....	43	---	---	50	---	295	718	414	---	---	---	---	1,520
Smelt.....	---	---	---	---	---	1,820	1,260	---	---	1,025	---	---	4,105
Sturgeon.....	1,612	---	---	---	---	---	---	---	20,327	---	---	12,258	35,809
Tuna, albacore.....	3,427,882	1,729,183	2,123,859	2,369,920	2,623,039	3,140,196	1,279,122	1,361,772	3,031,778	3,804,745	4,296,061	2,982,426	32,169,953
Tuna, bigeye.....	122,691	103,462	11,016	71,920	10,959	103,789	60,520	57,054	24,221	---	12,353	---	577,985
Tuna, bluefin.....	---	---	---	---	138,987	2,548,809	---	69,159	603,726	---	---	---	3,660,681
Tuna, skipjack.....	1,759,898	---	---	861,279	516	169,095	---	271,042	1,621,464	74,734	1,955,375	482,023	6,495,926
Tuna, yellowfin.....	5,847,396	3,294,186	2,966,642	7,891,090	3,091,110	4,147,355	4,930,886	3,847,407	6,186,738	4,437,014	2,511,753	4,683,545	53,833,616
Miscellaneous.....	---	36,780	30,000	---	30,000	35,550	32,085	67	36,000	---	---	33,375	234,127
Crustacean:													
Crab, king.....	---	---	---	---	---	---	---	---	---	---	---	21,492	21,492
Total pounds.....	11,164,840	5,280,666	5,196,294	11,199,715	5,938,369	10,469,514	6,341,911	5,637,336	11,545,479	8,360,815	8,280,896	8,595,080	97,989,915
Grand total.....	33,106,722	28,898,637	46,455,800	49,932,259	47,563,191	66,132,360	50,068,010	61,978,021	67,323,557	80,000,000	44,000,000	38,569,680	591,130,681

* For origin of shipments refer to Table 6.

59,558,139 41,584,248 591,130,681
59,558,139 41,584,248 591,130,624
59,558,139 41,584,248 591,130,681

TABLE 9
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Cabezon.....	397	484	8,651	10,572	6,555	11,840	12,198	15,011	19,403	2,784	522	1,038	80,458
Flounder.....	397	409	479	3,041	3,730	493	4	180	180	255	468	9,055	392
Flounder, arrowtooth.....	291	40	25	30	6	670	975	360	404	53	---	---	3,010
Halibut, California.....	---	---	---	---	---	---	---	---	---	---	---	---	---
Halibut, Pacific.....	---	---	---	---	578	---	---	---	---	---	---	---	---
Herring, Pacific.....	320	320	---	---	---	---	---	---	---	---	---	---	320
Lingcod.....	1,471	8,323	6,681	32,539	35,723	61,400	104,860	60,729	52,882	48,448	16,993	2,290	432,357
Marble, jack.....	---	---	---	---	---	---	---	---	---	---	800	---	800
Perch.....	6,809	4,528	4,137	5,823	---	---	10,566	9,097	1,682	803	751	376	44,572
Rockfish.....	28,653	124,419	109,405	163,702	108,275	147,926	211,701	204,414	138,566	297,144	127,694	29,772	1,691,671
Sablefish.....	10,743	15,147	36,176	79,803	117,760	85,350	127,107	101,372	93,234	205,346	105,120	25,313	1,002,471
Salmon.....	---	---	---	101,966	1,229,557	1,053,598	1,773,358	1,105,748	89,035	9,310	5,309	229	5,323,263
Sanddab.....	432	4,121	5,414	7,248	16,425	30,244	31,020	20,977	16,021	400	610	65	146,700
Shark.....	---	---	---	---	---	---	---	---	---	---	---	---	1,075
Skate.....	---	842	165	7,030	10,020	7,465	4,885	---	377	82	64	---	30,930
Smelt.....	40	15,250	10,573	4,354	13,063	27,523	53,023	47,652	48,932	8,690	---	---	230,000
Smelt, whitebait.....	10,326	34,062	17,852	24,946	24,946	22,040	21,297	20,366	752,303	1,169,497	---	---	180,362
Sole, Dover.....	34,420	12,008	110,706	252,582	553,890	570,300	822,763	834,153	207,545	221,965	407,099	50,505	5,580,531
Sole, English.....	7,380	46,000	77,824	158,092	111,687	132,922	307,743	293,832	207,545	171,825	171,825	3,879	1,733,706
Sole, petrale.....	70,989	34,370	40,987	73,146	109,071	126,158	132,095	67,182	104,299	137,072	50,369	82,580	1,057,319
Sole, rex.....	28,830	21,648	27,081	43,174	58,016	68,983	91,098	75,771	62,290	81,230	42,835	22,293	626,249
Sole, sand.....	634	233	992	2,788	1,652	1,592	5,095	2,403	425	---	---	130	15,951
Sole, miscellaneous.....	---	---	---	---	---	6	---	---	---	---	---	---	16
Tuna, albacore.....	---	---	---	---	---	---	15,546	1,822,291	1,619,576	1,248,217	44,788	---	4,750,418
Turbot.....	36	---	182	---	140	---	1,046	3,200	885	---	---	---	5,489
Miscellaneous (animal food).....	---	---	---	---	---	16,476	161,880	247,710	79,394	249,740	25,229	3,098	783,527
Crustacean:													
Crab, market.....	230,882	95,277	107,243	85,485	62,507	19,377	3,364	---	---	500	---	380,304	984,140
Crab, rock.....	825	775	900	1,250	1,100	1,100	1,200	800	800	---	---	---	9,250
Shrimp, ocean.....	---	---	---	---	178,900	241,850	164,660	347,453	480	---	---	---	933,343
Mollusk:													
Clam, Washington.....	26	1,702	1,163	1,242	770	543	80	36	---	---	---	---	4,133
Octopus.....	335	2,202	295	554	65,413	60,954	26,807	26,103	51,280	126,357	133,653	82,417	4,815
Oyster, giant Pacific.....	96,380	85,342	86,649	53,157	---	---	---	---	---	---	---	---	894,512
Total pounds.....	529,909	507,502	646,151	1,105,431	2,779,784	2,688,869	4,128,284	5,302,768	3,342,325	3,898,778	1,145,721	684,757	26,760,279

TABLE 9—Continued
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Waters north of State:													
Fish:													
Flounder	---	540	348	49	75	539	---	---	57	446	---	---	2,054
Lingcod	---	188	465	969	2,428	7,556	2,582	---	5,287	5,060	---	---	26,375
Rockfish	---	39,461	24,306	33,051	13,745	20,272	17,798	---	15,282	19,324	10,290	---	193,489
Sablefish	---	8	109	9,179	3,823	7,419	5,596	---	2,066	13,462	2,634	---	44,206
Sanddab	---	10	180	96	70	1,057	36	---	409	---	---	---	1,858
Sole, Dover	---	---	1,611	93,203	86,846	176,342	56,170	---	59,005	145,218	53,308	---	671,712
Sole, English	---	5,130	5,332	5,470	2,827	11,083	2,863	---	8,832	7,121	---	---	48,724
Sole, petrale	---	1,718	4,493	3,163	3,021	5,234	3,505	---	5,391	6,474	369	---	33,368
Sole, rex	---	190	649	3,298	1,801	4,905	1,307	---	1,236	2,968	113	---	16,467
Sole, miscellaneous	---	---	---	---	---	---	---	---	268	---	---	---	268
Turbot	---	470	---	---	---	---	---	---	---	---	---	---	470
Miscellaneous (animal food)	---	---	---	---	---	---	14,721	---	25,625	28,155	---	---	68,501
Crustacean:													
Shrimp, ocean	---	---	---	---	30,000	43,500	48,100	10,222	---	---	---	---	131,822
Total pounds	---	47,685	37,493	148,478	144,646	277,913	152,637	10,222	123,408	229,118	66,714	---	1,238,314
Grand total	529,909	555,187	683,644	1,253,909	2,924,430	2,966,782	4,280,921	5,312,990	3,465,733	4,127,696	1,212,435	684,757	27,998,593

TABLE 10
Monthly Landings and Shipments of Commercial Fish Into the San Francisco Area During 1964 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
T-52:													
Anchovy	12,807	31,685	24,980	10,000	10,500	9,350	3,260	11,300	4,500	10,600	11,550	3,000	30,110
Carp	1,013	685	1,325	12,005	10,500	9,500	7,900	193	37,400	13,251	1,050	14,300	130,527
Croaker, white	55,090	90,604	13,170	3,087	1,369	1,659	1,783	1,379	19,934	19,422	7,092	19,207	233,777
Flounder				220			315			145			680
Flounder, arrow tooth													
Hake, Pacific	2,495			1,650	9,405	1,495	2,475	4,858	1,468	6,257	7,428	11,438	17,520
Halibut, California	64,318	61,613	6,870	705	5,418	8,376	4,941	3,300	1,600	10,150	9,375	18,950	183,690
Halibut	8,419	27,100	38,005	12,995	12,450	13,300	1,203	3,300	1,600		185		158,847
Headhead	8,463	7,316	8,640										30,677
Herring, Pacific	13,111	11,371	8,652	11,993	30,334	42,657	18,834	33,387	37,400	36,871	18,779	10,255	273,648
Lingcod													
Mackerel, jack	38							449	415	320	475		1,697
Perch	1,000	1,853	4,202	5,926	102		523	1,326	1,172	639	216	615	17,574
Rockfish	232,001	246,102	85,405	65,257	111,247	157,914	77,328	94,107	192,259	230,992	156,553	101,152	1,750,317
Sablefish	13,450	128,989	83,799	48,565	70,304	70,304	99,865	39,711	76,932	83,720	70,595	61,857	826,336
Salmon				372,146	237,982	854,400	1,393,114	584,782	65,940				3,507,464
Sardine	11,745	16,759	29,185	36,965	36,615	19,405	26,120	29,670	38,460	19,787	26,748	17,364	308,823
Sardine				31					4,990	4,381			31
Seabass, white	10,705	7,546	8,782	6,101	8,305	11,244	4,445	19,510	17,472	13,229	16,300	10,485	136,324
Shark	13,400	18,020	14,375	7,950	6,550	5,350	6,400	5,800	7,650	6,500	7,875	7,500	107,370
Skate													
Snelt	4,501	23,634	38,030	6,026	5,675	3,184	1,829	2,073	2,428	1,757	120		88,157
Snelt, whitebait		502	941	2,219	2,365	2,365	362						10,553
Sole, Dover	32,996	468,890	666,074	228,470	229,846	204,498	214,024	70,814	238,789	160,715	133,602	84,356	2,737,004
Sole, Dover	176,930	290,942	75,704	96,470	130,280	124,833	117,855	151,175	246,400	212,631	212,423	247,037	1,992,680
Sole, English	29,996	55,858	66,717	77,815	79,563	62,889	51,255	94,245	80,900	92,077	151,613	105,221	948,109
Sole, petrale													
Sole, rex	31,525	61,412	42,459	32,105	34,510	34,433	31,005	35,850	57,101	42,104	31,468	25,211	459,783
Sole, sand	67,871	75,243	15,665	3,378	1,611	2,365	420	2,715	14,695	22,442	15,533	34,346	256,284
Sole, miscel meous				14		12	116	176	737	524	181	653	2,113
Tuna, albacore													
Turbot	4,585	11,620	5,060	3,040	940	1,035	3,195	3,996	618,723	387,244	38,372	413	1,328,481
Miscellaneous	69	122	21		13			74	5,215	2,799	5,983	10,205	57,468
Miscellaneous (animal food)													299
													42,917

TABLE 10—Continued
Monthly Landings and Shipments of Commercial Fish Into the San Francisco Area During 1964 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS:—Continued													
California Waters:—Continued													
Crustacean:													
Crab, market.....	127,141	55,813	9,537	5,430	4,510	13,129	---	---	---	---	430,153	175,296	821,009
Crab, rock.....	---	98	---	---	2,849	500	17,823	7,750	1,180	4,880	---	---	98
Shrimp, ocean.....	---	---	---	---	---	---	---	---	---	---	---	---	34,982
Mollusk:													
Abalone.....	713	---	4,880	3,738	3,296	4,959	10,018	4,733	1,775	2,250	417	1,933	38,731
Octopus.....	5,739	8,945	3,545	2,960	1,752	1,020	250	385	165	45	66	295	25,167
Oyster, eastern.....	391	2,032	850	---	---	---	---	---	---	394	553	690	4,910
Oyster, giant Pacific.....	17,475	20,512	19,963	17,712	15,819	14,376	11,598	17,170	18,854	14,318	19,288	21,208	208,293
Total pounds.....	948,017	1,633,266	1,275,736	1,077,323	1,034,063	1,675,856	2,122,244	1,527,626	1,815,414	1,379,917	1,382,291	996,318	16,898,071
Waters south of State:													
Fish:													
Tuna, albacore.....	---	---	---	---	---	---	8,317	---	---	---	---	---	8,317
Tuna, skipjack.....	---	---	191,092	---	105,387	519,695	370,707	---	---	---	---	---	1,186,971
Tuna, yellowfin.....	---	195,000	595,327	---	408,317	140,673	172,352	---	---	---	---	---	1,511,669
Total pounds.....	---	195,000	786,419	---	513,704	660,368	551,466	---	---	---	---	---	2,706,957
SHIPMENTS:†													
Fish:													
Shad.....	---	---	---	---	---	1,300	2,065	---	---	---	---	---	3,365
Tuna, albacore.....	594,337	30,669	142,275	312,179	39,890	185,015	---	23,093	335,584	213,502	45,875	606,750	2,400,129
Tuna, bigeye.....	70,771	103,462	11,016	71,920	10,959	103,789	60,520	22,399	---	---	2,192	---	457,228
Tuna, skipjack.....	---	---	---	---	---	---	---	8,040	---	---	---	---	8,040
Tuna, yellowfin.....	1,224,437	1,100,949	995,679	971,092	392,351	642,246	244,420	273,478	606,666	580,588	846,210	787,870	8,605,986
Miscellaneous.....	---	---	30,000	---	30,000	---	32,000	---	---	---	---	---	92,000
Crustacean:													
Crab, king.....	---	---	---	---	---	---	---	---	---	---	---	21,492	21,492
Total pounds.....	1,819,545	1,235,080	1,178,970	1,355,191	413,200	933,250	339,005	337,210	942,250	794,150	894,277	1,416,112	11,648,240
Grand total.....	2,767,562	3,063,346	3,241,125	2,432,514	1,960,967	3,269,474	3,012,715	1,854,836	2,757,864	2,174,067	2,276,568	2,412,430	31,223,268

* Includes Sacramento area landings.

† For origin of shipments refer to Table 6.

TABLE 11
Monthly Landings and Shipments of Commercial Fish Into the Monterey Area During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California Waters:													
Fish:													
Anchovy	328,087	17,000	89,900	42,500	294,500	115,333	208,790	250,275	301,228	820,584	277,832	27,200	2,833,229
Bonito, Pacific							354		265	586	60		1,265
Cabezon	223	86			78	17			319		1,074	105	1,913
Croaker, white	330	8,100	3,929	13,913	6,825	11,966	15,555	9,763	7,230	2,843	1,861	5,139	87,525
Flounder	8,404	15,943	7,786	5,859	6,560	4,151	2,073	731	9,159	5,786	1,486	1,175	69,113
Hake, Pacific													
Halibut, California	2,168	1,500	4,457	20,189	13,100	4,417	5,991	4,565	4,020	1,890	1,216	100	56,799
Herring, Pacific		4,899	2,250	4,553	1,881	8,765	6,397	4,696	6,200	1,289		785	42,919
Lingcod	1,209			112,186	130,425	69,662	60		5,940				318,273
Longfin		1,317	2,659	4,116	3,700	5,904	2,305	3,948	4,161	4,017	16,102	7,669	57,107
Mackerel, jack	1,550	131,500	30,285	11,350	560	487,845	61,027	72,960	887,315	643,990	169,953	85,825	2,584,160
Mackerel, Pacific													
Perch	198	830	9,165	6,062		50	50	547	1,814	147			2,558
Pompano, Pacific		25		1,035	3,873	1,756	326	972	46,865	1,481	24	208	16,836
Rockfish	178,032	159,729	61,375	110,524	250,797	262,666	233,404	242,363	202,676	170,194	151,614	151,487	56,196
Sablefish	21,013	52,516	12,072	3,600	33,295	73,903	46,132	35,244	53,760	29,910	30,177	19,095	410,717
Salmon													
Sandbar	2,890	1,447	14,447	93,108	62,273	106,089	56,793	48,796	11,382				378,421
Sardine	88,000	297,000		20,413	12,255	13,097	13,458	7,438	9,955	18,045	1,432	504	112,212
Seabass, white	102	101	52	109	112	1,812	4,275	6,070	13,641	2,546	1,212		414,556
Shark	4,743	3,698	2,064	1,022	4,118	5,083	28	47	23,008	1,542	755	385	26,338
Skate													
Smelt	2,532	7,450	14,040	10,590	8,205	7,795	6,472	7,613	5,250	4,090	1,916	1,875	77,828
Sole, Dover		870	9,710	2,627	2,034	3,060	1,473	1,651	2,356	16,970	1,980	1,020	36,751
Sole, English	10,585	26,358	5,493	3,045	9,280	14,820	13,765	14,378	3,270	880	205		67,116
Sole, petrale	2,410	11,828	35,572	79,533	48,350	19,837	15,160	28,654	35,270	45,250	19,690		389,787
Sole, rex					21,337	16,100	10,828	10,346	19,575	14,515	7,616	9,360	200,837
Sole, sand	26,510	34,000	21,449	7,920	8,270	3,380	4,560	4,055	3,956	13,782	30,035	25,335	183,252
Sole, miscellaneous				725					38				763
Swordfish	1,608	1,767	454	462	1,424	643	368	887	2,420	1,578	1,827	1,915	15,353
Tuna, albacore							22,782	349,550	629,193	743,659	527,256		906
Tuna, skipjack									104				104
Turbot													1,090
Miscellaneous	25	79		175	915								2,008
Miscellaneous (animal food)	3,150	4,570	555	2,650	8,300	7,400	4,000	6,775	1,300	2,625	2,575	2,980	46,880

TABLE 11—Continued
Monthly Landings and Shipments of Commercial Fish Into the Monterey Area During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:—Continued													
California Waters:—Continued													
Crustacean:													
Crab, market.....	980	3,307	1,241	145	52	—	—	—	—	—	1,284	771	7,780
Crab, rock.....	18	227	384	—	14	—	—	—	—	—	—	1,311	643
Prawn.....	2,298	904	108	—	—	—	—	—	46	191	917	—	5,775
Mollusk:													
Abalone.....	4,324	—	—	—	66	120	60	350	—	—	—	—	410
Octopus.....	—	1,352	575	—	—	—	—	—	—	—	129	112	6,578
Oyster, giant Pacific.....	—	1,946	—	3,026	—	—	—	—	665	712	1,186	884	8,646
Scud.....	—	—	175	98,925	2,425,429	2,913,340	1,641,610	1,516,917	368,737	41,100	91,190	3,900	9,101,923
Miscellaneous mollusk.....	40	64	41	32	36	44	12	31	38	51	14	55	461
Total pounds.....	691,419	790,413	364,159	703,834	3,358,215	4,156,511	2,378,433	2,630,810	2,721,636	2,591,788	1,351,936	372,796	22,111,950
SHIPMENTS:*													
Fish:													
Smelt.....	—	—	—	—	—	1,820	1,260	—	—	1,025	—	—	4,105
Total pounds.....	—	—	—	—	—	1,820	1,260	—	—	1,025	—	—	4,105
Grand total.....	691,419	790,413	364,159	703,834	3,358,215	4,158,331	2,379,693	2,630,810	2,721,636	2,592,813	1,351,936	372,796	22,116,055

* For origin of shipments refer to Table 6.

TABLE 12
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Anchovy		6,914	1,343	35,872		1,100				13,940	901		1,100
Barracuda, California		89		594	273	223	941	3,410	4,754	1,895	101	561	53,970
Bonito, Pacific	691	473	185				65	816			729	303	3,248
Cabezon													881
Croaker, white													
Flounder	7,959	8,303	4,827	2,326	903	447	306	524	548	198	176	65	25,585
Hake, Pacific						28,535	6,230	2,420					37,185
Haitort, California	46,797	39,548	35,506	26,626	23,169	22,592	41,292	23,979	28,716	20,433	21,754	34,769	371,218
Langcod	869	2,566	1,752	3,418	4,319	5,651	5,282	1,733	1,533	4,635	7,975	6,985	46,419
Mackerel, jack	56,720	1,050,640	739,900	258,920		272,180	67,600	1,916,925	2,041,080	1,695,680	2,201,300	1,864,550	12,168,795
Mackerel, Pacific								10,200	637,780	200,400			848,380
Perch	3,734	3,893	2,139	6,560	13		1,598	2,670	1,243	643	2,407	3,070	27,970
Pompano, Pacific							1,942	634					2,876
Pompano	226,121	238,694	161,650	89,907	119,156	122,003	90,289	62,475	143,442	132,910	103,818	93,743	1,584,298
Rockfish	1,150	4,220	5,630	11,683	18,552	4,565	11,059	180	17,710	8,034	1,680	3,752	88,215
Sablefish													
Salmon				3,104	6,270	30,760	65,299	54,251	12,342				172,026
Sandab			250		279								533
Sardine	23,000		149	36	45	70	82	136,435	451,880	91,600		137,050	839,965
Sea bass, giant		7,624	618	477	432	271	4,706	7,491	9,145	7,558	16,586	6,656	65,552
Seabass, white													
Shark	2,179	1,577	2,616	2,209	35,577	35,442	33,028	2,175	3,631	2,037	2,859	2,156	125,499
Sheepshead, California	110	474	110						30	103	108	74	1,009
Skate	2,804	1,563	355	123	158	515	45		106	233			5,902
Sole, Dover		5,970	9,305	3,894	38,333	26,855	55,179	40,200	19,908	600	5,135	2,506	208,875
Sole, English	29,689	33,651	73,019	74,215	55,247	81,290	25,520	7,755	5,903	7,626	8,232	25,701	427,548
Sole, petrale		8,651	40,816	101,310	86,185	126,172	24,452	13,723	19,445	13,774	11,259	5,692	457,053
Sole, rock	5,644	18,665	12,330	4,836	5,217	980	3,690	11,160	9,262	4,440	13,817	10,382	124,890
Sole, sand	30,157	7,173	7,360	3,654	2,496		294	432		1,296	590	356	63,199
Sole, sand	20,328	26,380	12,370	3,007	2,496		19	554					10,574
Sole, miscellaneous	71		3,925	3,007	2,251	142		4,173	6,213	4,851			16,237
Swordfish													
Tuna, albacore	109						16,936	340,845	1,243,790	1,435,678	829,418	24,988	3,891,744
Turbot	6,694	7,602	8,483	2,600	1,062	42	213			818	220	536	28,270
Whetfish, ocean		45					51						45
Yellowtail, California									17				68
Miscellaneous	18						8						34
Miscellaneous (animal food)	114,857	41,620	55,695	59,023	126,142	80,418	90,031	75,779	80,260	35,740	13,885	23,166	796,516

TABLE 12—Continued
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:—Continued													
California waters:—Continued													
Crustacean:													
Crab, market	161	189	537	889	237	12							2,134
Crab, rock	7,681	11,276	9,287	17,248	5,277	11,510	2,517	18,108	20,613	9,491	53	1,423	116,887
Lobster, spiny	27,310	18,132	9,605							19,872	13,158	15,694	103,771
Mollusk:													
Abalone	118,950		177,417	245,594	290,097	147,936	320,316	373,808	215,071	323,603	276,777	185,054	2,675,523
Octopus	235	245	30	176	632	430	130		120				1,998
Oyster, giant Pacific	17,191	20,495	20,011	26,864	23,942	19,033	15,677	12,213	11,481	15,207	24,265	37,104	243,483
Squid		47,000			5,400	2,280		230			42,500	372,570	463,980
Miscellaneous mollusk					6								6
Total pounds	755,207	1,606,507	1,384,693	985,255	851,702	1,021,754	885,411	3,124,791	4,986,820	4,059,628	3,605,741	2,860,298	26,127,807
Waters south of State:													
Fish:													
Mackerel, jack								10,000					10,000
Tuna, albacore								88					88
Total pounds								10,088					10,088
Grand total	755,207	1,606,507	1,384,693	985,255	851,702	1,021,754	885,411	3,134,879	4,986,820	4,059,628	3,605,741	2,860,298	26,137,895

TABLE 13—Continued
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:—Continued													
California waters:—Continued													
Fish:—Continued													
Tuna, albacore.....	---	---	---	---	---	250	1,942,004	5,051,138	2,798,643	3,832,308	3,095,613	109,253	10,829,859
Tuna, bluefin.....	---	---	---	---	---	---	59,903	3,825,633	628,968	68,610	---	---	4,586,364
Tuna, skipjack.....	---	---	---	---	---	---	---	---	---	459	2,658	---	3,117
Turbot.....	---	---	89	---	67	---	16	---	61	---	---	3	3
Whitefish, ocean.....	---	128	---	---	---	---	---	---	---	97	165	208	881
Yellowtail, California.....	54	---	132	59	5,142	7,760	1,715	1,077	2,530	1,061	142	---	19,672
Miscellaneous.....	---	12	---	11	10	152	107	---	---	70	30	---	392
Crustacean:													
Crab, rock.....	6,821	7,008	9,740	8,154	9,959	13,412	16,607	15,121	14,172	11,634	10,211	7,376	130,215
Lobster, spiny.....	24,187	17,988	4,118	---	---	---	---	---	---	57,003	36,544	23,959	163,799
Mollusk:													
Abalone.....	42,900	---	53,425	95,926	83,300	144,596	157,182	114,538	111,286	169,452	74,765	76,700	1,124,070
Octopus.....	---	3	---	---	---	---	---	---	---	---	---	30	33
Squid.....	960,670	951,340	202,825	731,050	172,800	6,855	74,550	---	---	3,000	904,935	2,850,085	6,858,110
Total pounds.....	1,749,632	3,971,223	9,553,498	8,609,371	4,477,379	17,006,786	11,656,866	19,046,039	26,127,103	22,663,767	16,804,981	8,058,262	149,724,907
Waters south of State:													
Fish:													
Barracuda, California.....	60	---	800	4,000	---	---	---	---	---	4	41,834	26,518	73,216
Bonito, Pacific.....	---	---	---	---	---	---	---	---	---	---	150	---	150
Cabrilla, spotted.....	10,175	2,218	265	140	64	730	---	---	---	---	---	---	13,592
Grouper.....	50,640	1,353	21,935	970	---	6,540	9,650	---	1,185	---	6,935	25,025	124,233
Halibut, California.....	382	723	---	135	565	841	---	285	9,297	38	6,202	14,748	33,216
Lingcod:													
Mackerel, jack.....	---	---	---	---	---	---	---	---	---	420	170	---	580
Perch.....	40	315	190	1,116	---	---	---	---	---	---	---	10,000	10,000
Rockfish.....	186	8,487	1,815	385	---	6,040	3,170	---	---	655	885	276	1,601
Sea bass, giant.....	18,198	7,323	12,823	19,161	3,491	8,990	7,908	---	15,808	20,741	7,946	13,639	136,328
Seabass, white:													
Shark.....	43,276	83,844	100,782	78,539	87,841	45,178	232	21,000	40,620	70,796	89,466	22,570	684,144
Sheephead, California.....	6,101	6,513	3,109	655	629	2,185	2,108	300	1,513	652	2,447	5,303	32,006
Swor fish.....	591	95	115	---	---	---	654	---	---	---	---	300	901
Tuna, albacore.....	7,125	---	---	---	---	---	344,961	2,294,414	556,001	1,085	4,569	420	3,356,968

Tuna, bluefin	8,880	48,719	187,309	3,825,528	4,204,407	5,116,383	2,034,511	430,533	29,810	15,886,080
Tuna, skipjack	6,493,520	2,944,332	5,652,355	3,166,828	4,171,856	5,068,747	4,400,862	4,993,490	5,291,605	52,206,418
Tuna, yellowfin	8,612,801	7,874,716	16,570,806	18,054,155	18,842,694	18,030,447	8,531,571	5,323,491	7,858,605	110,794,259
Whitefish, ocean										
Yellowtail, California	5,314	2,522	5,228	5,313	2,697	1,727	237	32	14,530	52,066
Miscellaneous										41
Total pounds	15,248,209	10,941,321	22,370,214	21,331,397	23,158,556	23,358,001	17,129,661	16,037,119	13,314,239	182,436,421
SHIPMENTS.*										
Fish:										
Barracuda, California										803
Haitut, California	600			528			275			3,120
Sablefish	50,000			440			1,241	839		180,169
Salmon	4,643			3,488	43,758		33,100	29,505	6,800	693,942
Seabass, white	75						639	83	35,897	375,961
Shad										
Shark	43									71,105
Sturgeon	1,612			50			718	414		1,520
Tuna, albacore	2,903,545								12,258	35,809
Tuna, bigeye	51,920			2,057,741	2,583,149	2,954,281	1,279,122	34,455	2,375,676	29,522,019
									4,250,186	120,757
									10,161	
Tuna, bluefin										
Tuna, skipjack	1,759,898									3,680,681
Tuna, yellowfin	4,622,959			898,745	138,987	2,848,809	69,159	603,726	1,055,957	482,023
Miscellaneous	36,750			6,718,559	516	169,095	263,002	5,580,072	3,895,075	4,580,236
					2,758,759	3,403,822	3,573,023	3,857,026	1,665,543	41,929,004
						35,850	85	36,000	33,375	142,127
Total pounds	9,345,295	4,025,586	4,017,324	9,639,551	5,525,169	9,435,257	6,001,646	5,310,126	7,178,968	83,951,089
Grand total	26,343,136	18,938,130	35,941,036	39,580,319	33,161,104	49,800,047	34,788,173	41,293,584	30,853,012	28,551,469
									40,766,751	426,112,417

* For origin of shipments refer to Table 6.

TABLE 14
Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1964

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
Fish:													
California waters:													
Anchovy.....	686	1,120	1,589	2,207	1,711	535	886	639	---	---	---	65	3,395
Barracuda, California.....	189	189	141	13	2,562	2,951	8,828	26,135	18,583	28,460	14,945	4,065	6,373
Bonito, Pacific.....	14,596	11,013	423	10	89	586	121	436	384	130	415	384	132,564
Croaker, white.....	155	527	14	---	25	---	---	---	---	---	---	---	3,251
Fluke, Pacific.....	---	---	---	---	---	---	---	---	---	---	---	---	25
Halibut.....	---	---	---	---	---	---	---	---	---	---	---	---	175
Halibut, California.....	9,537	20,110	13,055	8,997	6,910	15,744	15,615	14,866	8,216	5,682	4,904	19,316	142,052
Lingcod.....	---	---	---	---	---	98	---	---	---	12	55	11	176
Mackerel, Pacific.....	252	92	---	518	555	---	432	215	639	65	---	---	2,768
Perch.....	---	---	---	---	---	---	---	323	313	290	253	414	1,593
Pompano, Pacific.....	380	---	---	---	---	---	---	---	---	---	---	---	380
Rockfish.....	9,900	21,115	19,866	23,982	28,398	33,673	13,412	11,671	6,369	7,340	8,804	7,302	191,832
Sablefish.....	---	---	---	---	86	273	173	---	---	---	---	---	532
Sanddab.....	142	794	2,829	2,307	1,300	1,465	1,273	1,451	2,825	2,110	304	1,785	18,885
Sardine.....	---	---	---	---	63,450	---	100	18,000	22,650	56,250	26,570	9,200	196,220
Sculpin.....	11,784	8,336	2,414	3,810	2,291	6,290	7,457	4,820	5,299	3,501	2,886	2,587	61,475
Sea bass, giant.....	220	137	20	243	468	684	745	1,110	189	300	300	79	3,999
Seabass, white.....	2,317	612	4,430	1,632	3,118	2,837	2,524	28,642	3,125	1,829	884	230	52,180
Shark.....	8,596	5,027	4,237	10,819	18,314	13,605	13,027	11,746	7,565	5,127	7,732	8,463	114,258
Sheephead, California.....	2,027	1,983	255	197	134	785	723	291	38	1,126	453	174	8,186
Sole, petrale.....	---	---	---	---	---	---	984	---	---	---	---	---	984
Sole, miscellaneous.....	20	61	105	267	2,463	6,619	3,898	2,531	326	---	---	---	16,306
Swordfish.....	---	---	---	---	---	1,100	2,583	2,720	8,436	4,586	2,140	---	21,363
Tuna, albacore.....	---	---	---	---	---	---	185,791	1,177,882	1,060,600	1,556,560	624,699	189,433	4,794,965
Tuna, bluefin.....	---	---	---	---	---	---	4,340	4,244	60,382	---	---	---	68,966
Tuna, skipjack.....	---	---	---	---	---	---	---	---	333	124	310	---	767
Tuna, yellowfin.....	---	---	---	---	---	---	---	84	---	---	---	---	84
Whitefish, ocean.....	---	---	---	73	---	---	---	---	---	---	26	---	99
Yellowtail, California.....	---	---	---	238	1,092	1,227	197	830	1,522	787	232	13	6,138
Miscellaneous.....	---	30	---	---	---	---	285	47	---	---	---	---	362
Crustacean:													
Crab, rock.....	110	1,956	264	---	---	---	---	---	---	878	1,656	2,130	6,792
Lobster, spiny.....	21,229	17,299	4,341	---	---	---	---	---	---	68,943	42,801	24,472	179,085

Mollusk:	15,526	16,206	33,692	32,553	30,340	40,051	21,402	17,461	8,626	16,764	7,878	240,409
Abalone	---	3,911	---	---	---	---	---	---	---	---	---	3,911
Squid	---	---	---	---	---	---	---	---	---	---	---	---
Total pounds	97,097	74,100	88,995	165,509	118,762	303,211	1,330,203	1,225,255	1,752,318	757,150	278,001	6,281,382
Waters south of State:												
Fish:												
Baracuda, California	---	909	---	---	---	183	2,780	24	947	4,181	875	9,899
Bonito, Pacific	---	31	---	---	---	830	930	78	175	205	3,459	5,708
Croaker, white	---	72	---	---	---	---	---	---	---	---	---	72
Grouper	6,533	4,126	344	---	---	---	---	---	984	3,770	9,951	39,797
Halibut	---	---	---	---	---	---	---	20	---	---	---	20
Halibut, California	2,780	745	287	5,534	5,078	48,904	38,423	8,039	23,876	9,298	7,762	150,821
Lingcod	---	49	---	---	---	---	---	---	---	---	---	111
Mackerel, Pacific	---	125	95	---	---	---	345	---	---	---	---	665
Perch	---	---	---	---	---	1,596	---	---	2,939	---	---	95
Rockfish	7,306	5,726	3,070	55	100	---	349	925	---	1,619	11,677	52,051
Sablefish	---	---	---	---	---	---	55	---	---	---	---	55
Sanddab	---	---	49	---	---	140	---	---	---	---	---	489
Sculpin	6,594	9,654	5,522	700	---	3,926	9,755	2,924	35	---	---	16,640
Sea bass, giant	7,147	46,813	26,111	4,352	340	10,488	3,601	220	2,890	8,284	12,063	72,369
Seabass, white	---	---	---	---	---	---	5,041	1,175	18,609	22,115	15,735	156,120
Shark	589	1,122	2,605	225	1,195	1,187	892	49	55	242	---	8,161
Sheephead, California	286	---	---	---	---	1,083	838	600	190	140	492	3,629
Sole, miscellaneous	---	11	---	---	---	---	40	---	185	---	---	51
Swordfish	---	---	---	---	---	---	---	---	---	---	---	185
Tuna, albacore	---	---	---	---	---	1,020,187	3,438,090	668,279	177,725	10,510	---	5,314,791
Tuna, bluefin	733,725	1,602,883	758,530	1,788,546	317,819	736,242	571,157	666,604	307,297	30,729	30,729	2,629,848
Tuna, skipjack	1,155,356	3,093,235	3,882,855	3,341,709	682,631	443,202	740,696	1,273,522	2,511,561	409,898	834,313	12,661,577
Tuna, yellowfin	---	---	---	---	---	2,149,266	1,605,745	1,823,347	765,715	850,352	2,377,044	27,714,121
Wahoo	---	---	2,119	---	440	---	---	---	---	---	1,089	4,248
Whitefish, ocean	---	---	---	---	---	97	---	---	---	---	335	735
Yellowtail, California	1,976	1,542	1,873	140	---	255	1,920	3,523	8,944	7,474	3,805	32,155
Miscellaneous	100	---	---	---	---	---	---	---	---	---	---	100
Total pounds	1,922,392	4,767,043	4,683,460	5,141,264	4,698,023	4,417,886	6,420,719	4,440,329	3,822,127	1,325,088	3,409,929	48,874,533
SHIPMENTS:*												
Fish:												
Tuna, albacore	---	---	---	---	---	---	---	---	187,805	---	---	187,805
Tuna, skipjack	---	---	2,534	---	---	---	---	1,621,464	74,734	199,318	---	1,898,050
Tuna, yellowfin	---	---	201,439	---	99,187	---	---	---	---	---	---	300,626
Total pounds	---	---	203,973	---	99,187	---	---	1,621,464	262,539	199,318	---	2,386,481
Grand total	2,019,489	4,841,143	4,976,428	5,306,773	4,915,972	4,721,097	7,750,922	7,296,048	5,836,984	2,284,556	3,687,930	57,542,396

* For origin of shipments refer to Table 6.

TABLE 15

Value of Landings and Shipments of Commercial Fish Into California by Area, 1964

Species	Eureka	*San Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS:							
Fish:							
Anchovy.....	-----	30,110	2,833,229	1,100	2,107,255	3,395	4,975,089
	-----	\$2,535	\$44,315	\$65	\$34,977	\$169	\$82,061
Barracuda, California..	-----	-----	-----	58,970	258,898	16,272	334,140
	-----	-----	-----	\$8,914	\$43,542	\$2,505	\$54,961
Blacksmith.....	-----	-----	-----	-----	145,143	-----	145,143
	-----	-----	-----	-----	\$2,981	-----	\$2,981
Bonito, Pacific.....	-----	-----	1,265	11,956	2,460,776	138,272	2,612,269
	-----	-----	\$56	\$262	\$59,971	\$5,406	\$65,695
Cabezon.....	4	-----	1,913	3,248	116	-----	5,281
	-----	-----	\$70	\$193	\$11	-----	\$274
Cabrilla, spotted.....	-----	-----	-----	-----	13,592	-----	13,592
	-----	-----	-----	-----	\$2,190	-----	\$2,190
Carp.....	-----	194,527	-----	-----	-----	-----	194,527
	-----	\$11,466	-----	-----	-----	-----	\$11,466
Croaker, white.....	-----	23,177	87,525	881	723,678	3,323	838,584
	-----	\$1,983	\$5,389	\$25	\$31,460	\$309	\$39,176
Flounder.....	91,512	233,776	69,113	26,585	-----	-----	420,986
	\$4,675	\$13,059	\$6,209	\$1,424	-----	-----	\$25,367
Flounder, arrowtooth..	9,055	680	-----	-----	-----	-----	9,735
	\$391	\$28	-----	-----	-----	-----	\$419
Flyingfish.....	-----	-----	-----	-----	85,910	-----	85,910
	-----	-----	-----	-----	\$10,814	-----	\$10,814
Grouper.....	-----	-----	-----	-----	124,233	39,797	164,030
	-----	-----	-----	-----	\$27,445	\$9,584	\$37,029
Hake, Pacific.....	-----	17,520	56,799	37,185	-----	25	111,529
	-----	\$295	\$924	\$586	-----	\$1	\$1,806
Halfmoon.....	-----	-----	-----	-----	9,848	195	10,043
	-----	-----	-----	-----	\$1,878	\$25	\$1,903
Halibut, California.....	392	183,690	42,919	371,218	384,113	293,773	1,276,105
	\$98	\$43,473	\$10,359	\$81,855	\$90,569	\$62,428	\$288,782
Halibut, Pacific.....	3,040	-----	-----	-----	-----	-----	3,040
	\$917	-----	-----	-----	-----	-----	\$917
Hardhead.....	-----	156,847	-----	-----	-----	-----	156,847
	-----	\$41,515	-----	-----	-----	-----	\$41,515
Herring, Pacific.....	320	30,677	318,273	-----	-----	-----	349,270
	\$15	\$2,603	\$29,794	-----	-----	-----	\$32,412
Lingcod.....	457,732	273,648	57,107	46,419	1,184	287	836,377
	\$33,355	\$21,644	\$5,447	\$3,892	\$1,115	\$28	\$64,481
Mackerel, jack.....	860	1,697	2,584,160	12,178,795	74,927,399	-----	89,692,911
	\$25	\$75	\$66,116	\$238,922	\$1,804,131	-----	\$2,109,269
Mackerel, Pacific.....	-----	-----	2,558	848,380	25,973,510	3,433	26,827,881
	-----	-----	\$64	\$17,691	\$648,477	\$203	\$666,435
Opaleye.....	-----	-----	-----	-----	2,001	-----	2,001
	-----	-----	-----	-----	\$334	-----	\$334
Perch.....	44,572	17,574	16,836	27,970	24,475	1,688	133,115
	\$5,154	\$3,379	\$2,397	\$6,079	\$3,050	\$269	\$20,328
Pompano, Pacific.....	-----	-----	56,196	2,876	61,770	380	121,222
	-----	-----	\$19,007	\$628	\$13,505	\$95	\$33,235
Rockfish.....	1,885,160	1,750,317	2,174,861	1,584,298	479,393	243,883	8,117,912
	\$94,033	\$95,220	\$119,574	\$90,845	\$60,918	\$29,526	\$490,116
Sablefish.....	1,136,677	826,330	410,717	88,215	926	587	2,463,452
	\$109,190	\$31,866	\$17,992	\$3,513	\$95	\$47	\$162,703
Salmon.....	5,423,263	3,507,464	378,421	172,026	41	-----	9,481,215
	\$2,660,676	\$2,046,658	\$215,418	\$89,834	\$23	-----	\$5,012,600
Sanddab.....	148,618	308,823	112,212	533	266	19,074	589,526
	\$11,849	\$20,244	\$6,949	\$32	\$57	\$4,995	\$44,126
Sardine.....	-----	31	414,556	839,965	11,686,711	196,220	13,137,483
	-----	\$7	\$20,847	\$24,615	\$431,583	\$23,097	\$500,149
Sculpin.....	-----	-----	-----	-----	16,110	78,115	94,225
	-----	-----	-----	-----	\$5,401	\$21,213	\$26,614
Sea bass, giant.....	-----	-----	-----	984	145,363	76,368	222,715
	-----	-----	-----	\$129	\$23,399	\$12,378	\$35,906
Seabass, white.....	-----	9,371	26,338	65,552	1,081,520	208,000	1,391,081
	-----	\$2,272	\$4,865	\$16,893	\$244,758	\$40,563	\$309,351
Shark.....	1,075	136,324	41,820	125,499	219,432	122,419	646,569
	\$71	\$7,100	\$1,472	\$12,831	\$28,148	\$12,966	\$62,588
Sheephead, California..	-----	-----	-----	1,009	5,110	11,815	17,934
	-----	-----	-----	\$67	\$378	\$967	\$1,412
Skate.....	30,930	107,370	77,828	5,902	675	-----	222,705
	\$122	\$1,226	\$1,195	\$280	\$69	-----	\$2,892
Smelt.....	230,000	88,157	36,751	-----	59,131	-----	414,039
	\$12,641	\$10,951	\$2,278	-----	\$2,557	-----	\$28,427
Smelt, whitebait.....	180,362	10,853	-----	-----	-----	-----	191,215
	\$13,432	\$1,166	-----	-----	-----	-----	\$14,598

TABLE 15—Continued

Value of Landings and Shipments of Commercial Fish Into California by Area, 1964

Species	Eureka	*San Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS—Continued:							
Fish—Continued:							
Sole, Dover	6,252,243	2,737,004	67,116	208,875	-----	-----	9,265,238
	\$390,708	\$154,077	\$3,355	\$12,350	-----	-----	\$560,490
Sole, English	1,782,430	1,992,680	389,787	427,848	7	-----	4,592,752
	\$140,232	\$154,459	\$30,733	\$28,681	-----	-----	\$354,105
Sole, petrale	1,090,687	948,109	200,837	457,053	-----	984	2,697,670
	\$124,846	\$118,010	\$26,225	\$53,314	-----	\$246	\$322,641
Sole, rex	642,716	459,783	183,252	124,896	-----	-----	1,410,647
	\$46,396	\$31,213	\$9,172	\$8,615	-----	-----	\$95,396
Sole, sand	15,951	256,284	763	63,199	-----	-----	336,197
	\$1,745	\$29,565	\$98	\$7,348	-----	-----	\$38,756
Sole, miscellaneous	274	2,413	15,353	10,574	2,294	16,357	47,265
	\$16	\$135	\$1,502	\$460	\$241	\$4,063	\$6,417
Swordfish	-----	-----	906	15,237	145,130	21,750	183,023
	-----	-----	\$480	\$7,641	\$82,767	\$11,852	\$102,740
Tuna, albacore	4,750,418	1,336,798	2,272,440	3,891,832	20,189,827	10,109,696	42,551,011
	\$653,095	\$184,280	\$312,733	\$538,029	\$3,261,568	\$1,630,008	\$6,579,713
Tuna, bluefin	-----	-----	-----	-----	20,472,444	2,698,814	23,171,258
	-----	-----	-----	-----	\$2,490,314	\$336,279	\$2,826,593
Tuna, skipjack	-----	1,186,971	104	-----	52,209,535	12,662,344	66,058,954
	-----	\$127,101	\$8	-----	\$5,187,783	\$1,309,462	\$6,624,354
Tuna, yellowfin	-----	1,511,669	-----	-----	119,794,239	27,714,205	149,020,113
	-----	\$232,088	-----	-----	\$15,956,644	\$3,660,804	\$19,849,536
Turbot	5,959	57,958	1,090	28,270	3	-----	93,280
	\$339	\$3,054	\$21	\$1,473	-----	-----	\$4,887
Wahoo	-----	-----	-----	-----	-----	4,248	4,248
	-----	-----	-----	-----	-----	\$849	\$849
Whitefish, ocean	-----	-----	-----	45	872	854	1,771
	-----	-----	-----	\$3	\$68	\$67	\$138
Yellowtail, California	-----	-----	-----	68	71,738	38,293	110,099
	-----	-----	-----	\$7	\$8,253	\$3,434	\$11,694
Miscellaneous	-----	299	206	34	433	462	1,434
	-----	\$76	\$12	\$3	\$85	\$78	\$254
Miscellaneous (animal food)	852,028	42,917	46,880	796,616	-----	-----	1,738,441
	\$17,040	\$858	\$937	\$15,045	-----	-----	\$34,780
Crustacean:							
Crab, market	984,440	821,009	7,780	2,134	-----	-----	1,815,363
	\$297,849	\$315,570	\$3,320	\$938	-----	-----	\$617,677
Crab, rock	9,250	98	643	116,887	130,215	6,792	263,885
	-----	\$9	\$47	\$7,259	\$16,157	\$322	\$23,794
Lobster, spiny	-----	-----	-----	103,771	163,799	179,085	446,655
	-----	-----	-----	\$66,321	\$116,251	\$120,306	\$308,878
Prawn	-----	-----	5,775	-----	-----	-----	5,775
	-----	-----	\$4,050	-----	-----	-----	\$4,050
Shrimp, ocean	1,065,185	34,982	-----	-----	-----	-----	1,100,147
	\$106,516	\$3,701	-----	-----	-----	-----	\$110,217
Mollusk:							
Abalone	-----	38,721	410	2,675,523	1,124,070	240,499	4,079,223
	-----	\$7,238	\$89	\$405,518	\$137,297	\$22,669	\$572,811
Clam, Washington	4,133	-----	-----	-----	-----	-----	4,133
	\$635	-----	-----	-----	-----	-----	\$635
Octopus	4,815	25,167	6,678	1,998	33	-----	38,691
	\$200	\$1,181	\$664	\$115	\$7	-----	\$2,167
Oyster, eastern	-----	4,910	-----	-----	-----	-----	4,910
	-----	\$10,277	-----	-----	-----	-----	\$10,277
Oyster, giant Pacific	894,512	208,293	8,449	243,483	-----	-----	1,354,737
	\$161,012	\$37,492	\$1,520	\$43,826	-----	-----	\$243,850
Squid	-----	-----	9,101,623	469,980	6,858,110	3,911	16,433,624
	-----	-----	\$242,950	\$4,516	\$84,957	\$97	\$332,520
Miscellaneous mollusk	-----	-----	461	6	-----	-----	467
	-----	-----	\$114	-----	-----	-----	\$114
Total pounds	27,998,593	19,575,028	22,111,950	26,137,895	342,161,328	55,155,915	493,140,729
Total value	\$4,887,273	\$3,769,149	\$1,218,767	\$1,801,947	\$30,915,228	\$7,333,310	\$49,925,674

TABLE 15—Continued

Value of Landings and Shipments of Commercial Fish Into California by Area, 1964

Species	Eureka	*San Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
SHIPMENTS:†							
Fish:							
Barracuda, California.....	-----	-----	-----	-----	803	-----	803
					\$126	-----	\$126
Halibut, California.....	-----	-----	-----	-----	3,120	-----	3,120
					\$754	-----	\$754
Sablefish.....	-----	-----	-----	-----	180,169	-----	180,169
					\$40,446	-----	\$40,446
Salmon.....	-----	-----	-----	-----	693,942	-----	693,942
					\$361,748	-----	\$361,748
Seabass, white.....	-----	-----	-----	-----	797	-----	797
					\$248	-----	\$248
Shad.....	-----	3,365	-----	-----	71,105	-----	74,470
		\$1,953	-----	-----	\$6,032	-----	\$7,985
Shark.....	-----	-----	-----	-----	1,520	-----	1,520
					\$209	-----	\$209
Smelt.....	-----	-----	4,105	-----	-----	-----	4,105
			\$492	-----	-----	-----	\$492
Sturgeon.....	-----	-----	-----	-----	35,809	-----	35,809
					\$17,743	-----	\$17,743
Tuna, albacore.....	-----	2,460,129	-----	-----	29,522,019	187,805	32,169,953
		\$479,913	-----	-----	\$5,172,053	\$34,274	\$5,686,240
Tuna, bigeye.....	-----	457,228	-----	-----	120,757	-----	577,985
		\$55,406	-----	-----	\$12,012	-----	\$67,418
Tuna, bluefin.....	-----	-----	-----	-----	3,660,681	-----	3,660,681
					\$558,575	-----	\$558,575
Tuna, skipjack.....	-----	8,040	-----	-----	4,589,236	1,898,050	6,495,326
		\$824	-----	-----	\$415,639	\$186,542	\$603,005
Tuna, yellowfin.....	-----	8,605,986	-----	-----	44,929,004	300,626	53,835,616
		\$1,697,230	-----	-----	\$7,087,410	\$44,265	\$8,828,905
Miscellaneous.....	-----	92,000	-----	-----	142,127	-----	234,127
		\$9,199	-----	-----	\$72,396	-----	\$81,595
Crustacean:							
Crab, king.....	-----	21,492	-----	-----	-----	-----	21,492
Total pounds.....	-----	11,648,240	4,105	-----	83,951,089	2,386,481	97,989,915
Total value.....	-----	\$2,244,525	\$492	-----	\$13,745,391	\$265,081	\$16,255,489
GRAND TOTAL POUNDS	27,998,593	31,223,268	22,116,055	26,137,895	426,112,417	57,542,396	591,130,624
GRAND TOTAL VALUE	\$4,887,273	\$6,013,674	\$1,219,259	\$1,801,947	\$44,660,619	\$7,598,391	\$66,181,163

* Includes Sacramento area landings.

† For origin of shipments refer to Table 6.

TABLE 16
Value of Landings by Port, Eureka Area, 1964

	Value	Pounds
EUREKA AREA TOTALS	\$4,887,273	27,998,593
Eureka		
Salmon	\$1,013,872	2,086,528
Albacore	372,662	2,710,631
Giant Pacific oyster	161,012	894,512
Dover sole	158,237	2,532,157
Market crab	117,761	389,221
Ocean shrimp	73,266	732,660
Petrals sole	45,547	397,911
English sole	41,067	521,987
Sablefish	35,563	370,211
Rockfish	25,877	527,929
Rex sole	19,690	272,763
Lingcod	9,195	126,184
Sanddab	5,937	74,464
All other species	11,348	204,403
Totals	\$2,091,034	11,841,561
Fort Bragg		
Salmon	\$1,185,121	2,311,101
Albacore	265,742	1,932,928
Market crab	82,662	273,212
Dover sole	64,450	1,031,358
Petrals sole	40,054	349,919
English sole	31,485	400,190
Rockfish	22,822	456,413
Sablefish	20,105	209,295
Rex sole	9,390	130,076
Lingcod	9,216	126,474
All other species	14,876	394,824
Totals	\$1,745,923	7,615,700
Crescent City		
Salmon	\$236,347	568,697
Market crab	68,188	225,372
Ocean shrimp	33,202	332,025
English sole	19,480	247,605
Albacore	14,580	106,051
Dover sole	13,161	210,603
Petrals sole	12,188	106,479
Rockfish	10,569	202,595
Lingcod	6,215	85,291
All other species	11,319	142,735
Totals	\$425,249	2,227,453
Fields Landing		
Dover sole	\$154,860	2,478,125
Sablefish	51,886	540,138
English sole	48,200	612,648
Rockfish	34,765	698,223
Petrals sole	27,057	236,378
Salmon	20,411	45,437
Rex sole	15,463	214,207
Miscellaneous (animal food)	12,251	612,593
Market crab	8,901	29,419
Lingcod	8,729	119,783
Smelt	5,328	94,643
All other species	11,238	143,781
Totals	\$399,089	5,825,375

TABLE 16—Continued
Value of Landings by Port, Eureka Area, 1964

	Value	Pounds
Albion		
Salmon.....	\$106,343	206,469
Totals.....	\$106,343	206,469
Point Arena		
Salmon.....	\$76,631	148,777
All other species.....	14	282
Totals.....	\$76,645	149,059
Trinidad		
Salmon.....	\$21,852	56,062
Market crab.....	20,337	67,216
All other species.....	8	108
Totals.....	\$42,197	123,386
All other ports		
All species.....	\$793	9,500
Totals.....	\$793	9,500

TABLE 17

Value of Landings and Shipments by Port, San Francisco Area, 1964 *

	Value	Pounds
SAN FRANCISCO AREA TOTALS	\$6,013,674	31,223,268
San Francisco		
Yellowfin tuna	\$1,929,318	10,117,655
Albacore	484,219	2,491,364
Salmon	370,888	633,132
Market crab	142,410	370,505
Dover sole	128,214	2,277,585
Skipjack	127,925	1,195,011
English sole	102,746	1,325,525
Petrale sole	93,243	749,124
Rockfish	81,640	1,498,619
Bigeye tuna	55,406	457,228
California halibut	35,768	151,135
Sablefish	27,935	724,401
Sand sole	27,048	234,464
Rex sole	22,446	330,644
Sanddab	18,354	279,993
Lingcod	13,178	166,605
Flounder	8,980	160,761
Smelt	5,300	52,790
All other species	18,263	334,281
Totals	\$3,693,281	23,550,822
Bodega Bay		
Salmon	\$531,319	909,742
Market crab	98,905	257,318
English sole	46,863	604,580
Petrale sole	21,148	169,910
Dover sole	16,050	285,110
Rex sole	7,365	108,494
Rockfish	7,231	127,547
Albacore	6,470	46,934
All other species	21,437	333,455
Totals	\$756,788	2,843,090
Sausalito		
Salmon	\$515,683	890,937
Albacore	77,345	561,074
All other species	8,637	67,431
Totals	\$601,665	1,519,442
Point Reyes		
Salmon	\$295,177	503,883
Giant Pacific oyster	31,020	172,338
Market crab	26,809	69,747
Rockfish	5,184	98,447
All other species	22,529	256,172
Totals	\$380,719	1,100,587
Princeton		
Salmon	\$234,518	400,336
Market crab	34,533	89,844
Abalone	7,238	38,721
All other species	1,757	20,789
Totals	\$278,046	549,690

TABLE 17—Continued
Value of Landings and Shipments by Port, San Francisco Area, 1964 *

	Value	Pounds
Oakland		
Albacore.....	\$96,159	697,555
Salmon.....	91,003	155,348
Dover sole.....	8,730	155,070
Market crab.....	7,838	20,391
All other species.....	1,856	44,707
Totals.....	\$205,586	1,073,071
Clear Lake		
Hardhead.....	\$40,517	153,078
Carp.....	9,083	154,100
Totals.....	\$49,600	307,178
Tomaes Bay		
Eastern oyster.....	\$10,277	4,910
Giant Pacific oyster.....	5,508	30,602
All other species.....	9,754	84,473
Totals.....	\$25,539	119,985
Richmond		
All species.....	\$9,953	94,165
Totals.....	\$9,953	94,165
Berkeley		
Salmon.....	\$7,614	13,302
All other species.....	472	2,251
Totals.....	\$8,086	15,553
All other ports		
All species.....	\$4,411	49,685
Totals.....	\$4,411	49,685

* Includes Sacramento area landings.

TABLE 18

Value of Landings and Shipments by Port, Monterey Area, 1964

	Value	Pounds
MONTEREY AREA TOTALS	\$1,219,259	22,116,055
Moss Landing		
Albacore	\$275,814	2,004,169
Salmon	140,617	247,014
Jack mackerel	49,659	1,940,974
Anchovy	41,449	2,649,980
Squid	35,461	1,324,900
Pacific herring	19,074	203,753
Sardine	12,556	249,680
Pacific pompano	11,982	35,427
All other species	29,212	335,645
Totals	\$615,824	8,991,542
Monterey		
Squid	\$205,621	7,706,949
Rockfish	118,530	2,163,894
Albacore	36,167	262,804
Salmon	35,288	62,228
English sole	26,188	332,149
Petrale sole	21,558	165,099
Jack mackerel	16,364	639,533
Sablefish	14,867	339,382
Rex sole	8,968	179,185
Sardine	8,261	164,276
Sanddab	5,882	94,995
All other species	29,809	506,750
Totals	\$527,503	12,617,224
Santa Cruz		
Salmon	\$39,513	69,179
Pacific herring	9,260	98,920
California halibut	6,883	28,517
All other species	20,276	310,673
Totals	\$75,932	507,289

TABLE 19

Value of Landings by Port, Santa Barbara Area, 1964

	Value	Pounds
SANTA BARBARA AREA TOTALS -----	\$1,801,947	26,137,895
Morro Bay		
Albacore-----	\$525,361	3,800,201
Abalone-----	169,066	1,102,677
Jack mackerel-----	67,804	3,456,235
Rockfish-----	60,978	1,031,772
Giant Pacific oyster-----	43,826	243,483
Salmon-----	21,145	39,693
Petrale sole-----	17,054	146,203
Sardine-----	16,571	565,465
Dover sole-----	8,896	150,455
Miscellaneous (animal food)-----	7,288	364,113
Perch-----	5,576	25,743
All other species-----	25,514	314,296
Totals-----	\$969,079	11,240,336
Santa Barbara		
Abalone-----	\$223,359	1,484,959
Spiny lobster-----	54,529	85,319
California halibut-----	51,886	235,305
Rockfish-----	15,933	289,453
English sole-----	14,441	215,422
Shark-----	10,140	100,612
California barracuda-----	8,876	58,718
Rock crab-----	6,944	111,805
Petrale sole-----	6,197	53,127
Swordfish-----	6,083	12,130
White seabass-----	5,517	21,409
Miscellaneous (animal food)-----	5,198	259,694
All other species-----	3,103	77,272
Totals-----	\$412,206	3,005,225
Port Hueneme		
Jack mackerel-----	\$165,656	8,444,160
Pacific mackerel-----	17,478	838,180
Albacore-----	12,298	88,960
California halibut-----	12,084	54,803
Abalone-----	10,779	72,792
Spiny lobster-----	8,373	13,101
Sardine-----	7,792	265,900
All other species-----	7,341	498,380
Totals-----	\$241,801	10,276,276
Avila		
Salmon-----	\$68,402	131,812
Petrale sole-----	30,006	257,238
Rockfish-----	13,126	251,676
English sole-----	10,374	154,751
California halibut-----	8,489	38,498
White seabass-----	7,840	30,424
Sand sole-----	5,099	43,854
All other species-----	16,503	354,164
Totals-----	\$159,839	1,262,417
Ventura		
California halibut-----	\$5,978	27,110
All other species-----	4,295	25,119
Totals-----	\$10,273	52,229
Oxnard		
Jack mackerel-----	\$5,462	278,400
All other species-----	1,408	12,110
Totals-----	\$6,870	290,510
All other ports		
All species-----	\$1,879	10,902
Totals-----	\$1,879	10,902

TABLE 20

Value of Landings and Shipments by Port, Los Angeles Area, 1964

	Value	Pounds
LOS ANGELES AREA TOTALS	\$44,660,619	426,112,417
Terminal Island		
Yellowfin tuna	\$22,989,448	164,313,293
Albacore	8,378,861	49,373,713
Skipjack	5,603,327	56,797,811
Bluefin tuna	2,982,517	23,587,494
Jack mackerel	1,483,776	61,622,726
Pacific mackerel	526,810	21,100,386
Sardine	349,369	9,460,475
Squid	58,300	4,706,215
Pacific bonito	25,424	1,043,223
Bigeye tuna	12,012	120,757
All other species	930	10,826
Totals	\$42,410,774	392,136,919
San Pedro		
White seabass	\$221,224	977,528
Jack mackerel	83,102	3,451,323
Sardine	82,043	2,221,616
Abalone	72,456	589,831
California halibut	67,123	284,673
Bluefin tuna	66,326	545,256
Spiny lobster	58,668	82,665
Rockfish	57,375	451,328
Yellowfin tuna	54,606	409,950
Swordfish	53,128	93,159
Pacific mackerel	45,862	1,836,912
Albacore	43,116	266,896
California barracuda	41,517	246,855
Pacific bonito	28,422	1,166,235
White croaker	27,591	643,726
Grouper	27,445	124,233
Squid	26,197	2,114,742
Anchovy	23,544	1,418,469
Giant sea bass	22,944	142,538
Pacific pompano	13,149	60,136
Shark	11,760	92,236
Flyingfish	9,834	78,124
California yellowtail	7,718	67,090
Rock crab	6,811	54,891
All other species	12,090	146,232
Totals	\$1,164,051	17,566,644
Los Angeles		
Salmon	\$361,748	693,942
Sablefish	40,446	180,169
Sturgeon	17,743	35,809
Shad	6,032	71,105
All other species	74,126	151,975
Totals	\$500,095	1,133,000
Wilmington		
Jack mackerel	\$188,290	7,819,856
Pacific mackerel	47,251	1,892,559
Anchovy	7,803	470,089
Pacific bonito	5,648	231,757
All other species	5,426	171,188
Totals	\$254,418	10,585,449

TABLE 20—Continued

Value of Landings and Shipments by Port, Los Angeles Area, 1964

	Value	Pounds
Newport Beach		
Abalone.....	\$64,314	529,734
Jack mackerel.....	48,951	2,033,000
Pacific mackerel.....	28,512	1,142,000
Swordfish.....	26,472	46,419
Shark.....	14,627	113,323
California halibut.....	13,633	57,820
Albacore.....	8,935	55,308
White seabass.....	8,920	39,417
Spiny lobster.....	8,915	12,561
All other species.....	4,600	177,915
Totals.....	\$227,879	4,207,497
Santa Monica		
Spiny lobster.....	\$15,005	21,142
White seabass.....	11,549	51,033
California halibut.....	8,928	37,866
All other species.....	7,361	79,078
Totals.....	\$42,843	189,119
Long Beach		
Spiny lobster.....	\$16,878	23,782
All other species.....	10,135	124,195
Totals.....	\$27,013	147,977
San Clemente		
Spiny lobster.....	\$13,100	18,458
All other species.....	71	567
Totals.....	\$13,171	19,025
Redondo Beach		
Rock crab.....	\$7,684	61,927
All other species.....	4,815	36,693
Totals.....	\$12,499	98,620
All other ports		
All species.....	\$7,876	28,167
Totals.....	\$7,876	28,167

TABLE 21

Value of Landings and Shipments by Port, San Diego Area, 1964

	Value	Pounds
SAN DIEGO AREA TOTALS -----	\$7,598,391	57,542,336
San Diego		
Yellowfin tuna-----	\$3,705,069	28,014,831
Albacore-----	1,664,260	10,297,365
Skipjack-----	1,496,004	14,560,394
Bluefin tuna-----	336,279	2,698,814
Spiny lobster-----	109,778	155,649
California halibut-----	61,378	288,833
White seabass-----	39,895	204,868
Rockfish-----	28,605	236,396
Abalone-----	22,669	240,499
Sardine-----	23,097	196,220
Sculpin-----	21,196	78,053
Shark-----	12,743	120,391
Giant sea bass-----	12,354	76,218
Swordfish-----	11,852	21,750
Grouper-----	9,584	39,797
Pacific bonito-----	5,245	134,138
All other species-----	18,453	128,973
Totals-----	\$7,578,461	57,493,189
Oceanside		
Spiny lobster-----	\$6,156	8,729
All other species-----	3,150	20,761
Totals-----	\$9,306	29,490
All other ports		
Spiny lobster-----	\$10,372	14,707
All other species-----	252	5,010
Totals-----	\$10,624	19,717

TABLE 22
Statewide Commercial Partyboat Catch by Species
(Not including anchored barges)
1955-1964 *

Species	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964
Barracuda, California.....	154,962	87,603	577,184	782,723	1,105,585	755,408	391,884	335,507	483,699	303,070
Bass, kelp and sand.....	497,343	470,362	609,071	653,671	428,426	478,656	613,604	780,149	1,219,344	1,033,394
Bonito, Pacific.....	22,409	61,404	258,555	422,568	776,386	1,199,919	849,426	798,795	775,719	1,298,804
Cabezon.....	12,366	18,195	14,479	9,909	5,329	2,516	2,639	9,538	9,726	6,491
Halibut, California.....	35,802	21,661	10,795	16,192	25,365	48,310	108,011	118,966	125,669	141,465
Lingcod.....	29,113	37,649	38,012	39,801	31,206	28,232	23,466	25,399	27,513	25,263
Macreral, jack.....	39,173	23,493	6,878	27,867	11,820	8,377	28,890	3,029	9,342	6,577
Macreral, Pacific.....	151,018	121,136	151,960	136,607	88,952	79,370	113,988	116,738	146,560	101,219
Rockfish.....	1,737,702	2,036,708	1,395,151	1,461,132	1,177,379	1,015,673	898,641	956,438	962,659	966,801
Salmon.....	128,978	114,505	44,701	52,676	55,945	37,941	42,965	87,612	72,457	92,021
Sculpin.....	28,613	36,558	13,473	13,743	11,477	15,111	26,672	33,314	53,886	73,844
Seabass, white.....	30,103	19,755	19,050	34,039	10,593	15,697	14,082	14,564	19,800	14,901
Sheephead, California.....	14,102	14,789	15,105	18,120	17,146	11,541	15,210	13,488	18,443	26,822
Tuna, albacore.....	78,688	65,814	41,540	6,482	39	76,075	184,891	228,314	158,372	112,358
Tuna, bluefin.....	8,179	34,187	6,428	884	1,330	97	2,268	2,453	737	683
Whitefish, ocean.....	9,508	7,951	4,389	6,143	5,608	5,850	6,647	6,157	6,231	6,949
Yellowtail, California.....	36,468	29,198	242,686	123,384	457,360	254,969	42,367	21,826	45,705	39,104
All others.....	99,051	62,027	50,148	44,939	28,039	56,132	87,981	92,776	142,630	114,400
Total number of fish.....	3,113,883	3,262,995	3,498,585	3,950,680	4,328,575	4,090,034	3,453,633	3,655,993	4,278,502	4,434,176
Number of angler days†.....	496,286	523,063	536,175	515,152	557,154	516,255	495,805	595,866	643,155	695,445
Number of anglers.....	---	---	---	---	---	637,498	593,916	---	---	---

* See Fish Bulletin No. 121 for historical records 1936-1961.

† Not available after 1961.

TABLE 23
Recorded Catch of Live Bait for Saltwater Sportfishing, 1964

Species	Thousands of pounds*
Anchovy.....	10,382
Herring, Pacific.....	18
Sardine, adult.....	283
Sardine, juvenile.....	1
Miscellaneous†.....	26
Total pounds.....	10,710

* Weights are estimated from voluntary records submitted by 20 boats. A conversion factor of 12.5 pounds per live bait scoop is used. The weights of a scoop of live bait varies between 10 and 15 pounds. The records represent almost all of the live bait landings, however, they should be regarded as minimal.

† Consists primarily of queenfish and white croaker.

TABLE 24
Inshore Bait Landings
Pounds and Value
1964

Species	Statewide*	Sacramento	San Francisco	Los Angeles	San Diego
Clam					
Freshwater.....	214,363	33,694	180,669	--	--
	\$22,500	\$3,369	\$19,131		
Jackknife.....	72,500	--	--	30,917	41,583
	\$36,702			\$16,282	\$20,420
Purple.....	4,386	--	--	2,115	2,271
	\$1,920			\$1,050	\$870
Crab, sand.....	5,130	--	229	4,896	5
	\$9,660		\$101	\$9,539	\$20
Mudsucker, longjaw.....	7,306	--	--	--	--
	\$7,346				
Mussel (bay and rock).....	67,827	--	75	54,380	13,372
	\$6,264		\$7	\$4,974	\$1,283
Sculpin, staghorn.....	681	46	635	--	--
	\$1,167	\$91	\$1,076		
Shrimp					
Ghost.....	4,699	--	--	3,526	1,173
	\$22,423			\$16,081	\$6,342
Red.....	2,446	--	--	--	--
	\$3,913				
Miscellaneous.....	645	--	222	15	408
	\$1,807		\$1,184	\$11	\$612
Total.....	379,983				
	\$113,702				

* Some figures are reported only statewide to avoid revealing the business of an individual in an area.

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